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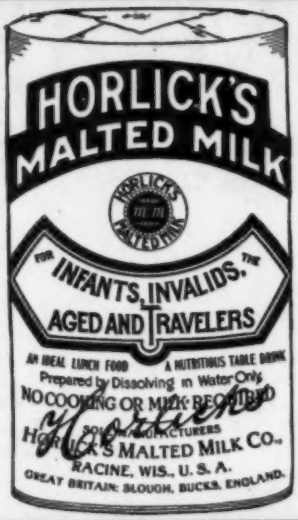
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Original Articles

INDIVIDUALIZATION IN THE TREATMENT OF SURGICAL INFLAMMATIONS.*

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In the economy of Nature every plant and animal seems to have one or more deadly enemies. If this were not true, then some one animal or plant would soon overrun at least that portion of the earth's surface in which the environmental and climatic conditions are propitious. If the above general statement is true, however, then we should be able to find a specific germicide for each microorganism which attacks man. In addition, these germicides should not be toxic to the human species.

The horticulturist has spent much time and money in finding a definite spray for every parasite that attacks his trees. In medicine, dermatologists have probably sought most assiduously and most successfully for a definite application for each particular kind of skin lesion, be it parasitic or non-parasitic. I sometimes wonder whether surgeons have shown the same diligence in looking for a definite specific antagonist for each one of the considerable number of bacteria that cause surgical inflammations and saprophytic infections. My own personal observation is that many general practitioners and even some surgeons have some "cure-all" application which they apply in all or nearly all cases of surgical inflammation irrespective of the nature of the infection or the species of the bacteria which may be the specific cause of the disturbance. The various lotions and ointments and other methods of treatment thus employed are probably all of value in certain definite infections, but it is not likely that any one of them is equally effective in all forms of infection. To the contrary, I believe that the wrong remedy may actually do harm. Thus, for instance, while we consider quinine a specific in malarial chills, I am convinced that it is a very dangerous drug in septic chills because it greatly reduces the phagocytic power of the white corpuscles. Again various wet dressings are of benefit in some types of infection, but are contra-indicated in impetigo contagiosa because they usually cause this infection to spread.

A certain amount of routine in surgery is unavoidable and may even be of real value, but too much routine is deadly. It kills the enthusiasm of the surgeon, making him a mere human machine and also unnecessarily kills some of his patients, making them mere corpses.

No practical orchardist would think of using the same spray in combating all the pests and fungi that attack his trees and shrubs. Is it not time that surgeons display as much judgment in their work as do horticulturists in the management of their orchards? It took the general surgeon many years to learn that a tubercular abscess must be treated differently from a collection of ordinary pus and I find that even now some surgeons have not learned their lesson very well. I cite the above illustration to emphasize as strongly as I possibly know how the necessity of making a definite bacteriological diagnosis in each case of septic infection and wound infection and then applying the treatment found most effective, for I feel that our clinical studies and chemical and bacteriological investigations have taught us which remedies are most effective in overcoming many of the surgical inflammations to which the human body is liable.

My two years' experience as student assistant in the dermatological clinic of the late Professors Hyde and Montgomery first aroused my interest in this subject and for over twenty years I have been trying to determine what specific form of

*Read at the meeting of the Illinois State Medical Society at Bloomington, Ill., May 9, 1917.

treatment is most effective in each one of the various types of infection.

The general therapeutic agencies, such as rest of the individual, rest of the affected extremity with the muscles at equilibrium, avoidance of mixed infection, elevation, drainage, proper elimination and general hygiene have been considered elsewhere and will not be discussed here. This paper will deal mainly with specific remedies and local applications that have been found by others as well as myself, as most efficacious in the various infections. Because of the length of the subject, I shall only give conclusions today, leaving reasons for these conclusions and the report of clinical cases for a larger monograph.

Gas bacillus, anthrax, glanders. With these I have had no personal experience and so far as I know no specific remedies have been discovered for any of them.

Rabies. In dog, cat, wolf or skunk bites, lay the wound wide open, apply a piece of gauze saturated with Churchill's tincture of iodine, leaving it on ten or fifteen minutes even at the risk of slight vesication, then apply 50 per cent. of alcohol in water dressing. If the biting animal has been found rabid or has been lost track of, use Pasteur treatment immediately.

Tetanus. For wounds likely to be contaminated with the tetanus bacillus, lay the wound wide open, remove all foreign bodies such as clothing, paper wads, etc., swab the wound carefully with 95 per cent. carbolic acid, then with 95 per cent. alcohol and apply a 50 per cent. alcohol in water dressing. Give an immunizing dose of anti-tetanus serum immediately.

Erysipelas. Erysipelas I consider a self-limited disease which will get well in the great majority of cases, providing the general hygiene and elimination are looked after properly and the treatment is not too heroic and drastic. As a local application, I have found saturated solution of boric acid in water with from 15 to 33⅓ per cent. of 95 per cent. alcohol the most comfortable to the patient and the most effective in aiding the production of immunity.

Streptococcus, staphylococcus albus, staphylococcus citreus, diplococcus of Weichselbaum. In all strains of streptococcus, staphylococcus albus, staphylococcus citreus and the diplococcus of Weichselbaum, I believe a saturated solution of boric acid in water with from 15 to 33⅓ per cent. of 95 per cent. alcohol more satisfactory than any other remedy. If the infection is superficial, first painting the reddened area with 95 per cent. carbolic acid until it turns white and then washing it off with 95 per cent. alcohol hastens the recovery.

Pemphigus vegetans. In pemphigus vegetans I consider a saturated solution of boric acid in water a specific.

Staphylococcus aureus. In staphylococcus aureus I find that boric acid and alcohol are not nearly as effective as in the previous mentioned infections. I find that the staphylococcus aureus is usually the infective agent in carbuncles and furuncles and in these two classes of cases I have used successfully 95 per cent. carbolic injected with a hypodermic needle around the base of the carbuncle, sometimes using as much as two drams in a large carbuncle without producing smoky urine or any other toxic symptoms. This usually relieves the pain very rapidly and results in the carbuncle coming out in a slough and leaving a granulating surface which heals very rapidly. As a local application, in addition to the carbolic acid, I like 50 per cent. alcohol in water or 5 per cent. yellow oxide of mercury ointment as I have found that other wet dressings have a tendency to cause development of a new crop of carbuncles. If the carbuncle has come to a point when the patient first appears for treatment, I usually take a culture and subsequently make a vaccine which comes in handy in the few cases that make a slow recovery. On a few occasions I have excised the whole carbuncle with good results. Dr. Vilray P. Blair of St. Louis in a personal communication told me that he had had splendid results in excising carbuncles with the electric cautery. I can see how this might be a very satisfactory method of treatment.

Furuncles are usually best treated by epilating the central hair, then taking a culture for subsequent vaccine, then treating the furuncle with 95 per cent. carbolic acid, later with alcohol and applying a 5 per cent. yellow oxide of mercury ointment. Incision and wet dressings are likely to result in a new crop of furuncles. Incising and squeezing furuncles situated on the inner aspect of the nose is particularly hazardous because of the direct communication which exists between this area and the superior longitudinal sinus by means of the valveless veins of the nose. I know of a number of cases where an apparently harmless furuncle of the nose ended fatally from

general sepsis. In each of these fatal cases the furuncle was freely incised and no regard was paid to the protecting wall of leucocytes.

Blastomycosis. In blastomycosis my personal experience is very limited, but I believe that large doses of potassium iodide given internally and very careful excision, being particularly careful not to infect the freshly made wound, are the most effective remedies so far discovered.

Actinomycosis. In actinomycosis removing the focus of infection such as diseased tonsils or teeth, then laying open the sinuses to their very tips and giving the patient sixty grains of potassium iodide three times a day for three days followed by an interval of four days, then repeating, as first advised by my brother, has resulted in cure of every case which I have had under treatment. Incision alone or potassium iodide alone are not nearly so effective and frequently result in failure.

Rodent ulcer. Contrary to the opinion of all pathologists, as far as I know, I consider rodent ulcer an infection and not a true carcinoma. Complete excision, being careful not to reinfect raw surfaces of the wound, and covering the defect with skin flap has resulted in cure without recurrence in every case I have treated.

Impetigo contagiosa. Five per cent. yellow oxide of mercury ointment or three per cent ammoniated chloride of mercury ointment are very effective in this condition.

Flachen bacillus of Unna. Vaccine therapy with sulphur or resorcin ointment and mechanical irritation such as scrubbing with tincture of green soap and curetting once a week with a sharp spoon are very effective in this condition.

Acute articular rheumatism. Sixty grains of sodium salicylate in eight ounces of normal salt solution by rectum once or twice a day for three consecutive days, with immobilization of the joints and excluding acids from the food, is, I believe, not only palliative, but curative and would, if employed regularly, reduce to a minimum heart complications. Sodium salicylate given in this way is certainly very much more effective than when given by mouth.

Malignant edema. For malignant edema Lord Lister advised "scraping away very thoroughly under chloroform the brown pultaceous slough and freely applying acid pernitrate of mercury to the exposed surface, then applying a poultice until the eschar has separated." Fenger recommended infiltrating the healthy tissue all around the infected area with glacial acetic acid, in this way securing mummification of the diseased area, this to be followed by excision or high amputation. Lawrence Ryan recommends high amputation, with eversion of flap, treating the wound with hydrogen peroxide and injecting the tissues with pure oxygen.

Noma. The only two cases of noma I have ever seen I treated in conjunction with Dr. Lawrence Ryan at the county hospital. Both responded promptly to bromine fumes.

Chronic sepsis. For neglected cases of chronic sepsis where the wound has or has not healed, but where the patient does not regain his former vigor, I have found hot air baths with profuse sweating and tub baths at 93° F. on alternating days very beneficial.

Pyocyaneous. For twenty years I have been looking for some remedy to overcome pyocyaneous infections and have tried every antiseptic I could think of including formaldehyde fumes and vinegar without finding any remedy of real value. Evidently, I did not use the vinegar in the right strength because Dr. Kenneth Taylor in the Nov. 26, 1916, *J. A. M. A.*, reports excellent results with a one per cent solution of acetic acid in normal salt solution as a wet dressing.

Influenza bacillus. Though I have treated a number of cases of pure influenza bacillus infection, I have been unable to find an antiseptic of any particular value and so far as I know none has been discovered.

Vincent's angina. In Vincent's angina two to four per cent. silver nitrate, one-half to one per cent. copper sulphate and Loeffler's solution have been recommended.

Koch-Weeks bacillus infection, Morax-Axenfeld diplobacillus infection. In Koch-Weeks bacillus infection and Morax-Axenfeld diplobacillus infection, one-half to one per cent. silver nitrate and five to twenty per cent. argyrol have been recommended.

Surgical tuberculosis. In surgical tuberculosis I consider prevention of secondary infection the most important item. The other points of importance are properly conducted vaccine therapy, rest, particularly of the affected member, suitable food and fresh air.

Gonorrhea. In gonorrhea there is much dif-

erence of opinion and many remedies have been recommended but so far as I know no specific has been discovered. Personally, I have had the best results with vaccines.

Syphilis. Calomel in the initial lesion and potassium iodide, mercury and arsenic in subsequent stages.

Specific inguinal adenitis. Wide excision of the infected area, leaving the wound open, with dry dressing for four days, then daily tub baths at 93 degrees F., followed by skin grafting as soon as the granulations are firm, has been found the most effective methods of the different methods tried. This method shortens the period of healing very materially.

Colon bacillus. I have found vaccine therapy and tub baths at 93 degrees F. the most effective of all remedies tried.

Indolent ulcer. In indolent ulcer, particularly in non-syphilitic ulcers of the leg, I have found Unna's paint applied in the form of an Unna's paint boot, as first introduced in this country by Dr. W. S. Royce of Chicago, very satisfactory. In very intractable indolent ulcers, I have recently followed the advice of Dr. Stuart McGuire of Richmond, Va., who in a personal communication told me that his grandfather, his father, Dr. Hunter McGuire, and he himself, and their pupils have for many years used two grains of chloral hydrate to the ounce of water as a wet dressing. I have been delighted with the result and it is surprising how quickly these old ulcers clean up and epidermisize. After they are healed I have found the Unna's paint boot very satisfactory.

Saprophytic infections. For the past twelve years I have used daily tub baths at 93° F. with very satisfactory results. Dr. H. M. Richter of Chicago recommends continuous tub baths, many others are using Dakin's solution in these cases with very good results. Others prefer nascent hypochlorite 1/1,000. One thing is noticable that the solutions which are valuable in septic infections are usually valueless in saprophytic infections and vice versa.

Mixed infections. Mixed infections sometimes tax the surgeon's ingenuity to the limit. If the infective agents are a parasite and saprophyte, first treating the wound with the indicated parasiticide and then with the remedy best suited to overcome the saprophytic infection usually accomplishes the desired results. In mixed infections, where one of the infective agents is the tubercle bacillus, Beck's bismuth paste has proven of real value.

I have presented the foregoing conclusions at this time because I believe that the personal experience of the members of this society, which I hope will be brought out in the discussion of this paper, would be a valuable contribution to surgery; and because there is some danger at this time of having this valuable and useful knowledge—the result of years of clinical experience by hundreds of medical men—put temporarily into the discard by a new fad.

At the beginning of the war some of the lay journals informed us with flaring headlines that Dr. Carrel was going to accomplish wonders by replacing lost ears and noses and faces by new ones, and was going to thereby revolutionize the art of surgery and minimize the horrors of war. However, something must have gone wrong, Either the supply of faces ran out or they did not heal on when sewed on. At any rate, very suddenly this class of copy disappeared from current literature. Something had to be done to fill the space and a new eighth wonder had to be discovered to appease the American public's desire for sensation. A wonderful new solution had to be concocted. As medical men, we should be very careful not to lend ourselves to the popularization of a new fad or to become faddists ourselves. A medical faddist is always a nuisance and may actually be a serious menace to the community which he serves. I am convinced that if Dakin's solution is indiscriminately substituted in the treatment of septic infections for the many valuable remedies above mentioned, much serious harm will be done and many patients will unnecessarily acquire contractures or lose their limbs and even their lives.

2155 Cleveland avenue.

REPORT OF AN INTERESTING CASE IN ITS RELATION TO SO-CALLED TRAUMATIC HERNIA*

C. R. G. Forrester, Chicago

This is a case of an affection which is continually calling for judgment and decision on the part of the physician and surgeon and even more so upon the industrial commissioners of

*Read at meeting of the Baltimore & Ohio Surgeons at Cleveland, Ohio, June 23, 1917.

our state, who have to decide upon the findings whether an employer is responsible. I relate this case with the idea in view that it will probably clear up some points. Also, as one of the greatest problems faced by those who are required to express opinions as the basis for financial settlement for disability, the result of injury, and by the surgeon who must decide from what source he is to derive remuneration for an operation performed upon one claiming injury, traumatic hernia well deserves searching investigation. The economic importance of this subject is, moreover, well recognized and has been repeatedly dealt with in our literature.

On November 7, 1916, a case so closely related to the subject and so unusually cogent to one part of the discussion as to render a report thereon imperative, came under observation. H. S., employed as a teamster, while loading a wagon with lumber, exerted himself to force a timber 4x6x22 inches onto the top of his load. He was holding the end of the plank against his abdomen, and as it did not drop into place he gave an extra hard shove. He experienced a sudden sharp pain in the left inguinal region, of such severity that consciousness was lost for some minutes following. This, according to the man's statement, upon regaining consciousness, was followed by an intense pain in the affected area, accompanied by nausea but no vomiting and a complete inability to ambulate. Some three hours later his pulse was 130, temperature 97, and respiration 32. The scrotum was found distended to the size of a Rugby football, discolored, tense and painful to the touch. The left inguinal canal was distended and painful. The patient was removed to a hospital and operated upon about five hours following his injury. Making the usual incision through the superficial structures for herniotomy, much hemorrhage was discovered at the external opening. The external oblique muscles, its fascia and the internal oblique and transversalis muscles were lacerated and in places showed considerable separation of their fibres. The transversalis fascia was intact. On opening the sheath of the spermatic vessels, rupture of the veins was evidenced. Approximately one quart of clotted blood was evacuated from the scrotum. There was no evidence whatever of hernia formation, no suggestion of a protrusion of the peritoneum or abdominal contents was present, in or about the region of the internal abdominal ring, the structures at this point being intact, not even the slightest evidence of hemorrhage, the condition being found at the external opening only.

Apparently, in this case, all the requisite factors for the production of hernia due to pure trauma were present. There was a rupture of the abdominal wall and a conspicuous increase in intra-abdominal pressure working together for a short space of time. If inguinal hernia can result from trauma other than piercing of the internal ring structures, why did it not develop in this case? What requisite factor could have been lacking? The explanation of these questions, we believe, is equally decisive in all cases of traumatic hernia, so-called. To understand clearly the agency which was additionally necessary for hernia, it is requisite that some space be given to a discussion of the embryonal and anatomical development of the supporting structures of the peritoneum.

From within, we find first the peritoneum, a membrane derived, no doubt, from the embryonal somatopleur and thus from the somatic mesoblast and epiblast, as a single layer of mesothelial cells and certain mesenchymatous units which later give rise to specialized connective tissue underlying and supporting the epitheloid mesothelial cell layer. External to this serous membrane is an extremely variable layer of fat, a layer which is only with the greatest difficulty demonstrable on the anterior belly wall, being present in macroscopical proportions only under the attachment of the peritoneal reflections forming suspensory ligaments and again under the peritoneum near the bladder.

Omitting this rare pro-peritoneal fatty zone, externally to the peritoneum we find the intra-abdominal fascia, denoted in various locations by different names, but embryologically identical throughout, and anatomically fused to form a continuous container for the peritoneum, a container showing no defect of continuity other than those necessary for the transmission of vessels, etc. This tissue is derived, apparently, from the paraxial mesoblasts, by the same migratory phenomena responsible for the musculature of the abdominal wall, although, owing to lack of early knowledge of the importance of this structure, its derivation has been neglected. All indications of segmentary union have disappeared. Anatomically, using the local names which medical custom has authorized, we may trace this fascia as follows: immediately anterior to the quadratus lumborum muscle there is a moderately strong layer known as the anterior layer of the lumbar aponeurosis which is, at its margin, attached to the transverse processes of the lumbar vertebrae and blends with the iliac fascia covering the psoas muscles. At the outer edge, this fascia is in part continuous with that on the

internal surface of the transversalis muscle, the transversalis fascia, and in part is blended with the aponeurotic sheet formed by the middle and posterior layers of lumbar aponeurosis forming the tendon of the transversalis muscle. Above the tissue extends as a thin layer upon the diaphragm, strengthened by a specialized portion which supplies many fibres to the diaphragmatic fascia, the ligamenta arcuata interna, attached to the body and transverse process of the first lumbar vertebra. The iliac fascia extends also to the diaphragm, being attached below with the anterior layer of the lumbar aponeurosis to the iliac crest, the former internally to the ileo-pectineal line. This lower border extends forward to become fixed to the deep surface of Poupart's ligament, where it coalesces with the transversalis fascia. The latter is attached anteriorly in the linea alba, below to the internal surface of the conjoint tendon, Gimbernat's ligament, and Poupart's ligament, and the iliac crest. Above, it is continuous with the thin sub-diaphragmatic fascia. The pelvic fascia is continuous with the iliac and transversalis and is attached to the ilio-pectineal line. A portion extends inward from the wall to the middle line of the pelvic outlet, at which point the layers from the two sides meet forming a floor supporting and ensheathing the bladder and prostate. This portion, which is pierced by the rectum, and, in the female, by the vagina, is commonly termed the recto-vesical fascia. The fascia covering the lower part of the obturator internus, attached below to the bone along the lower margin of the obturator internus muscle, and behind to the great and small sacrosciatic ligaments, joins the recto-vesical fascia along a dense line, the linea albuginea, from which the greater part of the levator ani muscle takes origin.

At this point, the origin of the levator ani muscle, inspection will show a delicate tubular prolongation of fascia on the internal surface of the muscle for some distance along the rectum, a similar prolongation being likewise found on the vaginal wall. If care is exercised in dissection, similar projections are found accompanying each and every organ which perforates this envelope. Thus it is that we find the iliac vessels receiving a strong sheath from the transversalis and iliac fasciae. Moreover, at the exit of the spermatic cord or round ligament and the deep epigastric artery, similar sheath formation is present. Also, the same is true of the obturator vessels and the branches of the internal iliac vessels which pass through the sacrosciatic notch.

These prolongations of the fascia are found to be funicular in shape and of varying length, generally comparatively short, but occasionally, a point of great importance, they are not terminated for some considerable distance. The latter is generally coexistant with an anomaly of the peritoneum, the existence of a patent, semipervious, or occluded sac, as in congenital inguinal hernia.

The second point of prime importance is the tensible strength of these funicular processes, that is, their capability of resistance to the vital stress and strain impressed upon them during life. Individual variations among the several processes of the fascia of one individual are conspicuous, but the variability of the same process in several individuals is even more marked.

If now, according to the dictum of Moschcowitz and others, we accept as fact the hypothesis that the fibrous envelope of intra-abdominal fascia is the real resisting structure of the walls of the abdominal cavity, we will at once be struck by the importance of examining the physical factors of these fascia extensions. In passing, let it be said that the author can with the greatest difficulty only contemplate a belief adverse to the above hypothesis, the more since observing the case above reported in which all support other than the said fascia and the peritoneum and cutaneous structures was obliterated without hernial protrusion, and considers the results of poliomyelitic paresis of this same musculature, where not hernia but slight displacement is the rule. Again, such evidence as is offered on one hand by a case observed by one of my associates in which a well developed man of some 38 years was struck in the umbilical region by the bottom of a large chemical fire-extinguisher driven off at high velocity by explosion, in which case operation showed intrinsic rupture of a great number of the portal vessels, laceration of the spleen, etc., without any defect of the abdominal wall or hernial protrusion; and on the other hand by the experiments of Pember and Nazum in which cats were subjected to crushing trauma with resulting rupture of the visci without hernial protrusion (a result, however, which must be con-

sidered in relation to hernia other than inguinal owing to the conspicuous difference between the inguinal anatomy of man and all other mammalia), and reported cases in which the stomach, spleen, etc., have been forced into the thoracic cavity through trauma, without failure of the parietal wall; surely these support belief in the resistant nature of this structure.

Let us then take for granted the acceptance of the hypothesis that the retaining and resisting structure of the parietal wall is the intra-abdominal fascia, and scrutinize the relations of these aforementioned funiculate prolongations which accompany egressing structures. We will first note the effect of the element of speed of force applied in such manner as to markedly increase intra-abdominal pressure. It will be clear, if from no other fact than that of experience in blunt dissection, that an increased pressure persistently or intermittently applied over a long period to funicular process of less than ideal strength will produce an increase of the volumetric capacity of such process, as is the case with all tissues endowed with that high degree of physical elasticity needful for supporting structures. A bulging or saculation will thereby result with a deviation from approximately conical outline to one more closely resembling the frustum of a cone, thus producing or rather presenting a new surface at the end distal to the abdominal cavity. This surface will now be subject to stresses applied in such a direction as necessarily to tend to a separation of the attached fibres from the structures accompanied, i. e., a vein, and so an elongation of the entire process. Needless to remark, the nature of the peritoneum is such that it will be intimately associated in such an extension. Thus we may readily conceive the failure of a comparatively weak process with the gradual development of a periotoneal dimple or material hernia. Hence, no doubt, many herniæ are produced and continue to grow by this means, primarily due to congenital weakness or defect of the fascial prolongation, and secondarily to normal or increased intra-abdominal pressure, which assist in gradual development.

The other aspect of the problem, to-wit, the effect of an increased pressure suddenly applied to the parietal resisting structures, is, however, entirely different. Here we will find no gradual extension and distortion of the process and attachment of the structure to its accompanied organ, but rather a stress applied in all directions equally, according to the law of the transmission of pressure by liquids and semi-liquids, with rupture of the weakest spot, followed by the protrusion of the peritoneum, sudden in advent, without any accommodation by gradual displacement, and presumably resulting in similar laceration of this structure—a hypothesis well sustained by the finding of very thin peritoneal covering or peritoneal tears with the rare true traumatic hernia.

It will be concluded then, that in our case such a congenital weakness or defect of a funicular process of the intra-abdominal fascia did not exist, and that, therefore, with the possible exception of diaphragmatic hernia, rupture of the visci themselves would have preceded the production of hernia through any of the normal hernial canals, such rupture having been prevented by the failure of the muscle wall with relaxation of pressure. Especially note the coexistant laceration of the spermatic vein, clearly denoting the magnitude of the stress sustained.

While primarily intended purely as a report of a case bearing most remarkably on one factor in the traumatic hernia discussion, it may be well to conclude this paper with a quotation from the masterly dissertation on this subject by that recognized authority on hernia—Dr. Alexis Moschcowitz:

> Both in Europe and in America, hernia discovered after strains, falls, and injuries, have been accepted as "accidents" and their possessors have been, and are being, compensated accordingly by the employers or by insurance companies, with and without court decisions.
>
> It is time that, in the interest of fairness, and of scientific truth, this should be changed. It is time that medical men, familiar with the anatomy and the pathogenesis of hernia, should cease to certify them as accidents, and should instruct the courts in the relationship between ruptures and antecedent strains, falls and injuries.

PYELOCYSTITIS IN INFANCY AND CHILDHOOD.*

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It was not until 1894 that Escherich called attention to the frequency of pyelocystitis in

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childhood. The outstanding points in his monograph are: (1) The predominance of the infection in girls, and (2) the frequency of the colon bacillus as the causative organism. These points have since been corroborated by numerous observers. Although the frequency of the pyelocystitis has been repeatedly emphasized in the writings on this subject, the profession at large has not appreciated the frequency nor the seriousness of the condition. This is due largely to two factors:

1. The difficulty of obtaining urine, and
2. The absence of any signs or symptoms, pointing toward trouble in the urinary tract.

If we leave out of account the common cold and gastro-intestinal disturbances, pyelocystitis is one of the commonest acute diseases encountered in girls under two years of age.

Symptomatology.—Pyelocystitis is characterized by the absence of local and the presence of general symptoms. The general symptoms are chills, fever, pallor, loss of appetite and a varying degree of prostration. The younger the child, the less likely is it that there will be local symptoms. In infants they are usually absent. When local symptoms do occur, there may be frequency of urination, burning pain, colicky pains in abdomen and pain over the bladder.

The infrequency of local symptoms makes it absolutely essential to examine the urine repeatedly in any febrile condition during infancy and childhood. The statement is usually made that any unexplained febrile condition in a female infant is likely to be pyelocystitis. Even this is not the whole story (1) because of the frequency with which pyelocystitis complicates acute infections and gastro-intestinal disturbances, and (2) because of the frequency with which gastro-intestinal disturbances occur secondarily to pyelocystitis and are considered the sole cause of the fever.

One must distinguish between the primary and secondary forms. In the former the illness begins acutely in a child that has been perfectly well up to the time of the onset. This type is frequently seen in breast-fed infants that have never been sick. The picture is very striking. A well developed breast-fed infant that suddenly becomes ill with high fever, pallor and restlessness and an entire absence of physical findings, is in the majority of instances suffering from a pyelitis. The secondary form develops during a gastro-intestinal disturbance (summer type) or after infections of the upper respiratory tract (winter type). Local infection of any kind may be complicated by a pyelitis. This makes it very essential to examine the urine repeatedly during the course of any illness, especially when the fever persists. In this form boys are as frequently infected as girls. In order to make a diagnosis of pyelocystitis, one must examine the urine.

Just a few words regarding the urine in pyelocystitis:

1. Methods of obtaining urine. If an infant has diarrheal stools it is almost impossible to obtain an uncontaminated specimen by means of a receptacle such as the Spicer urinal. Usually it is essential to obtain a specimen immediately in acute conditions. If the usual methods fail, the infant should be catheterized. The technique for catheterization is as follows: The orifice of the urethra is carefully cleaned with a 1 per cent. lysol solution and a sterile glass catheter introduced, being careful not to touch anything but the orifice. In a large series of recatheterizations, we have never found that an infection was caused by catheterization. In the catheterization it is well to remember that frequently the pus will all settle to the bottom and the first urine obtained will be perfectly clear, the last portion a thick creamy pus. If only a small amount of urine is taken, the pyelocystitis may be overlooked.

2. The presence of pus cells in the voided urine. If the freshly voided urine is cloudy with bacteria and pus cells, there is no question of the diagnosis in the absence of a vaginitis. The presence of pus cells singly and in groups in a clear voided specimen is not necessarily an indication of a pyelocystitis, and it is essential to obtain a catheterized specimen before making a diagnosis. As a result of temporary plugging of a ureter, the pus may disappear from the urine for 12-24 hours.

3. The persistence of the pus in the urine after the child has recovered from its symptoms has led some physicians to minimize the importance of finding pus in the urine. The tendency to recurrence is one of the greatest difficulties in the successful treatment of the disease.

4. The persistence of the bacteria after the disappearance of the pus makes it essential to

obtain several negative urinary cultures before pronouncing the case cured. The probability is great that many of these cases are not cured in childhood and give rise to the pyelitis of pregnancy.

5. Organism isolated. We have studied 45 cases bacteriologically, nine in boys and 36 in girls. Of the boys eight had a colon infection, and one had a staphylococcus infection. Of the girls, 28 had a colon infection, one colon and streptococcus, two pneumococcus, one Bacillus lactis aerogenes and three bacilli of the intermediate group of Gärtner's.

Course. The variability of the clinical picture is such that the only manifestation may be a slight fever discovered only by the thermometer, and on the other hand the picture may be so severe as to suggest an acute meningitis. The difference in the severity is probably due to the fact that different portions of the tract are affected. At the present time we have practically no knowledge concerning the frequency with which the kidney or bladder are involved. The cases that come to autopsy usually show involvement of the pelvis and those dying acutely show marked changes of the kidney. In like manner a mild case may suddenly become very toxic, the temperature rising suddenly to 104 without any change in the urinary findings or with a sudden absence of pus due to a plugging of one ureter. The severe complications are usually due to an involvement of the kidney substance. One other point that deserves emphasis is the marked tendency to recurrence. This point, however, needs further work because it is questionable whether or not it is not merely a recrudescence of the old infection. The prognosis in colon infections is usually good. The dangers to life are from involvement of the kidney and in young infants from gastro-intestinal disturbances resulting in a chronic atrophy.

Therapy. The most important therapeutic measure is plenty of water to wash out the purulent exudate from the kidney and bladder. In older children there is usually no difficulty in having them take plenty of fluid. In younger children this frequently occurs. Infants may refuse to take anything by mouth and in severe cases what is taken is vomited. Gavage must here be resorted to. If vomiting is persistent fluid must be given per rectum. If this fails fluid must be given by hypodermoclysis, by intravenous injection or by intraperitoneal injection. At least one quart of fluid should be given every 24 hours to a child under two and at least two quarts in older children. In the drug treatment, we must differentiate between the infant and the older child. The infant usually improves more rapidly on alkaline treatment than by the use of urinary antiseptics. The citrates alone or a mixture of equal parts of citrate and bicarbonate must be given in amounts to render the urine definitely alkaline to litmus, and that as rapidly as possible. It is wise to start in with a child two months or over with a dose of 90 grains in 24 hours and increase this dose by 60 grains each day until the urine is alkaline. The urine must be kept alkaline for a period of at least two weeks.

We have carried on some experiments to determine if possible what the action of the citrate is. Thus far we can only say that it has no antiseptic effect, the bacteria are just as numerous in the alkaline as in the acid urine, although the clinical symptoms have disappeared. Similar experiments were undertaken to see whether the colon bacillus produced more toxin in acid than in alkaline media. These have so far proved negative. It appears, therefore that the action of the citrate is largely a diuretic one.

If urotropin is given in the acute stages, the concentration must be taken into consideration. If the infant is secreting only a small amount of concentrated urine, a small dose may give sufficient concentration of formaldehyde to act antiseptically. If the urine is dilute, it will have no effect.

The dosage of urotropin that we have employed is from 3 to 5 grains 4 or 5 times in 24 hours to children over 6 months of age. The use of Burnham's test at present is too unsatisfactory to recommend its use for quantitative determinations. If plenty of fluid is given the danger of producing hematuria is relatively slight.

In older children one finds very frequently that the citrate is not effective so that after three days of alkaline urine and no change in the clinical manifestations it is advisable to switch to urotropin. If the urine does not become definitely acid, it is well to give sodium acid phosphate to render the urine acid. When neither alkalinization nor urotropin proves successful, switching abruptly from one to the other frequently will

prove successful. In long persisting cases autogenous vaccines may be tried, although the results of the author in this regard are not very promising.

THE IMPORTANCE OF NASAL AFFECTIONS IN GENERAL PRACTICE.*

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In every department of human endeavor, we find the intellect first struggling in a mass of chaotic empirical observations, next progressing to a discerning assortment and classification of knowledge, and finally towards a synthesis of the parts into a composite whole. So it is in the practice of medicine. The old time physician was called upon to minister to all the ills that human flesh is heir to. This stage has long been passed. We have made considerable progress along the path of classification. The human anatomy has been divided up into sections and the parts distributed among various specialties. This has resulted in a wide division of incoordinated responsibility and the time cannot be far distant when the sundered fragments will have to be reunited into a synthetic whole and the old time individual physician replaced by an association of specialists in the routine practice of medicine. This time has not yet arrived. At present the special forces are dispersed, and we must be thankful that the general practitioner is yet with us to keep these parts from flying asunder into disjointed space. Medical practice is now conducted through the agency of the general practitioner who summons consultants to his aid as he sees fit and as the spirit moves him. The sick come to him first. He is the first to scan the general situation. The organs in whose welfare the general practitioner is deeply interested stand the first chance of being early investigated and treated. The heart, lungs, abdominal viscera, systems of circulation, innervation, secretion and excretion, are not likely to be overlooked. There are, however, some parts of the human anatomy that have had the misfortune to have been exiled to the region of ultra-specialdom. These organs are constantly in danger of losing the sympathetic interest of the general practitioner—the first friend in need—and of having to wait and suffer long before any one takes cognizance of their appeal.

I had the honor sometime ago to plead the cause of the larynx before this assembly, and now I embrace this opportunity to speak in the interest of the nose.

The physiology of the nose is interesting on account of the multiplicity of functions the organ is called upon to perform. The nose is the special organ of the sense of smell. In animals and in primitive man, this sense is markedly developed, but under conditions of civilization its acuity has diminished. It may be considered now as the lesser function of the nose, the first importance being given to the role the nose plays in the function of respiration. The nose is not merely a passage way for the respiratory current. It is more than that. The air may be looked upon as gaseous food, and like the solid food it must undergo a process of preparation before it is fitted for assimilation. The solids are prepared in the upper portions of the digestive tract, the air in the upper regions of the respiratory tract—the nose.

During its passage through the nose the air is warmed and moistened by an abundant blood supply which is regulated by the erectile tissue and an admirably adjustable vasomotor system. In addition to that the air is filtered clear of foreign particles and most germs. Their removal is accomplished by the hairy entanglements guarding the vestibule—the vibrissae—by the viscid secretions that clog their progress, by the cilia of the columnar epithelium that waft them outwards, and by the bacteriacidal properties resident in the mucous secretion. Finally, when noxious particles succeed in evading these guards and penetrate the interior of the nose, their temerity excites the nasal righteous indignation expressed by the tremendous sneezing reflex that hurls the invaders back. These are the several lines of defense which still leave in reserve the instant reflex closure of the vocal cords, which are quick to intercept the tracheal and bronchial spasmodic cough, ready to expel offending substances. All this presupposes a keenly alert mucous membrane, unimpaired columnar epithelium, an unaltered mucous secretion and a normal blood and nerve supply.

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Abnormal nasal conditions may be considered of two varieties. One variety comprises mechanical obstructions to free nasal breathing as adenoid masses in the postnasal space blocking the posterior nares deflected septum, and hypertrophies of the turbinal bodies. The other variety comprises the acute and chronic infections of the nose. In young children, especially of rachitic diathesis and lymphatic hyperplasias, the obstruction to nasal breathing is usually due to adenoid tissue in the nasopharynx, although nasal diphtheria and foreign bodies must not be overlooked. The mouth is not provided with the complex filtering, warming and moistening apparatus. The dust laden air cools, dries and irritates the mouth and pharynx and causes catarrh of the nose and the lower respiratory tract. The necessity for mouth breathing harasses the child in its attempt at nursing, develops catarrhal states of the digestive tracts, prevents sleep and gives rise to such various reflex neuroses as eneuresis nocturna, laryngo spasm and possibly pyloro spasm. Aprosexia is another symptom complex described in these children. It consists of an inability to concentrate the attention on one thing, forgetfulness and headache. In this connection some of the comments in the literature are of interest. It is claimed to have been shown that there exists an intimate relationship between the blood and lymph supply of the nose and of the subarachnoid space as well as between the venous channels of the nose and those of the interior of the cranium. This accounts in the opinion of some for aprosexia and for choreic and apoplectiform manifestations sometimes observed in children with nasal stenosis.

Another important result of nasal obstruction in the young is the malformation of the upper jaw and the alveolar process. The dome-like hard palate is pushed up into the nose and the incisor teeth protrude horizontally outward. Add to this the broadening of the dorsum of the nose, the nasal speech and vacant expression and you have the facies of the adenoid child.

So much for the child. In the adult the obstruction is usually hyperplasia of the turbinals and septum deviations. These subjects are peculiarly prone to develop pulmonary tuberculosis. It is claimed that a large percentage of tubercular persons have defective nasal breathing. That defective nasal breathing is an important predisposing element in the etiology of pulmonary tuberculosis has been impressed upon me by my observations at the Eye and Ear Infirmary. I wish to mention the case of two families who have come under my observation in whom the ravages of the disease has been really appalling. In one family in particular out of eight children, five died between the ages of sixteen and twenty-three of pulmonary tuberculosis. I have been struck by the fact that they all had structural malformation in the nose that interfered with proper breathing. Personally I have been so impressed with this relationship that I have recommended to a large fraternal society operating among the workingmen, to insert in their medical examination blanks questions relating to free nasal breathing. Mouth breathers are deprived of the protective agencies afforded by normal nasal respiration. They have the chronic catarrh of the upper respiratory tract, the chronic bronchitis, the illy areated apices on account of the insufficiency of the respiratory current, they are the victims of dyspepsia, CO_2 intoxication due to poor oxygenation, they suffer from the various anemias, neurasthenias and many of the reflex nasal neuroses.

When we turn to the consideration of the acute and chronic infections of the nose, it is well to call special attention to the nasal accessory sinuses. These sinuses play a minor role in the physiology of the nose, but when it comes to pathology they assume protean importance. Barring tertiary syphilitic destruction, atrophic rhinitis, and mechanical nasal obstructions, barring also the infections of selective localizations, like diphtheria, erysipelas, the exanthemata, and the vaso-motor nasal disturbance, like hay fever and allied states, there are few acute and still fewer chronic infections of the nose that need be dignified by any serious clinical consideration, unless they involve the accessory sinuses. An acute rhinitis that stops short of the accessory sinuses is at most a mild discomfort of brief duration with symptoms no more formidable than a heightened irritability of the Schneiderian membrane, a sense of tension, attacks of sneezing and an increase of serous discharge. The more serious manifestations of headache, temperature and purulent discharge are expressions of sinus involvement. Indeed it may be stated without

any reservation, that it is the accessory nasal cavities that give to nasal pathology its distinguishing characteristics.

This will be readily understood when it is recalled that the course of inflammation is mainly a question of drainage. The nasal cavities proper are usually well drained, the accessory cavities usually are not. They are irregular enclosed spaces, partly sub-divided into inaccessible recesses. They communicate with the nose through small openings and tortuous passages which are readily occluded by swelling, and when infection once gains entrance the chance for its rapid subsidence is not always favorable.

The accessory sinuses of the nose are very frequently infected in the course of many general infectious diseases, and in their turn they exercise a deleterious influence upon the general economy. They do so by interference with proper nasal respiration as in polypoid degeneration of the ethmoid or the other sinuses, by extension to contiguous organs, as the larynx and ears, by focal infection and by reflex nasal neurosis and neuralgias.

The incidence of sinus disease in general infections has been studied by Zukerkandel, E. Frankel, Weichselbaum, Wolff, Pearce, Hajek, Skillern, and others. According to these authors the accessory sinuses are involved in many cases of pulmonary tuberculosis and that next to the sputum the tubercle bacilli may be recovered from the accessory sinus secretions. In influenza the sinus involvement is the rule, the influenza bacillus being found in either pure culture, or as is more frequently the case, accompanied by the pneumococcus, staphylococcus, streptococcus and other germs. In facial erysipelas the antrum of Highmore is always involved and in some cases is the primary source of infection. Hajek reports a case which had five recurring attacks of facial erysipelas with antrum involvement. He opened and drained the antrum and there was no further recurrence of attacks for five years. In diphtheria membranous inflammation extends to the sinuses. In all the exanthemata the accessory nasal sinuses are frequently involved. Accessory sinus empyema is not infrequent after typhoid and pneumonia.

It is seen then that besides participating in the inflammation of the nasal cavity proper, the accessory sinuses are frequently involved in the course of general infectious diseases. It has also been seen that the drainage facilities of these cavities are readily disturbed and as a result the chances for chronic sinus disease must be very numerous indeed.

Chronic sinus disease as a source of focal infection to distant organs cannot be overestimated. J. C. Beck, in estimating the various regions mostly involved in focal infection places the sinuses only next in importance to the tonsils. Billings includes the accessory nasal sinuses among the most common sites for focal infections, and enumerates a most formidable list of acute diseases that may be traced to this origin, such as acute rheumatic fever, rheumatic endocarditis, myocarditis, pericarditis, chorea, nephritis, appendicitis, cholecystitis, osteomyelitis, etc.

Various forms of inveterate headache and intractable neuralgias of trigeminal origin, as supra—and infraorbital neuralgia, are due to some latent infection of the accessory nasal cavities. Examples of this are so numerous that it is superfluous to cite them. Supraorbital neuralgia is frequently associated with acute or chronic disease of the frontal sinus, because the supraorbital nerve supplies filaments to the anterior and lower wall of the frontal sinus. The infraorbital nerve is intimately related to the roof of the supramaxillary sinus. In this position it is less frequently involved in inflammations of this cavity. It is worth mentioning, in this connection, that periodicity is a valuable symptom of accessory sinus involvement. Being dependent on faulty drainage, the symptoms will fluctuate according as posture, time of day, occupation, atmospheric changes and climatic conditions may influence the emptying of the cavities. The frontal sinus drains best in the erect position and therefore secretions tend to accumulate during the night with resulting morning headache. In the maxillary sinus conditions are somewhat reversed. The recumbent position with the head low and turned toward the sound side being better for drainage than the erect posture. Such patients on arising frequently expel masses of purulent secretions from the nose and nasopharynx which accumulated during the night, with consequent relief and subsequent recurring afternoon headache. The sphenoid somewhat partakes of the characteristics of the antrum in

this respect. Drainage from the ethmoid labyrinth is either very simple when the cells open directly into the nose, or very complex when they open into each other, as they frequently do.

The subject of reflex neuroses deserves a few remarks. The nasal reflex arc is made up of branches of the trigeminus as the sensory or afferent end and of the pneumogastric as the motor or efferent end. The most familiar reflex is that of sneezing, normally called forth by irritation of nasal mucous membrane. Frequent and prolonged attacks of sneezing are often caused by irritating secretions or pressure points in the nose. Under conditions of increased sensitiveness, the same reflex mechanism may give rise to a "nasal cough" which may simulate an unproductive cough of tubercular origin. Another group of aggravated nasal reflexes contains spasm of the glottis and bronchi, epileptiform and asthmatic attacks, reflex irritation of the genitalia, cardiac excitation or retardation, and disturbances in the respiratory rhythm. Allied to this group are the vaso-motor neuroses, described as vaso-motor coryza, hydrorrhea of the nose and hay fever. It is worthy of note that pertussis has also been regarded as a nasal reflex neurosis, and it is claimed that it may be considerably mitigated by cocainization of the nasal mucous membrane.

In the etiology of these neuroses recognition must be given to the neurotic and hysterical element, but one must not overlook the important role of accessory sinus suppuration, hyperplasia of the turbinals, polypoid formations, pressure in the region of the middle meatus, and deflections of the septum, which very frequently form the anatomical basis to which the neurotic disposition reacts.

In this connection must also be mentioned the conditions of diminished sensitiveness of the nasal mucous membrane and the reflexes. In such cases foreign particles are inspired into the lungs and may play a part in the etiology of pneumonoconiosis and inspiration pneumonia.

25 E. Washington Street.

ILEUS*

CARL LANGER, M. D., CHICAGO

Your committee, which assigned the subject of ileus to me tonight, did so, I am sure, not with the expectation that I would be able to present anything new—for little has been added to the literature on ileus in the past dozen years, but solely with the thought that a reiteration of the salient points in so tremendously important a type of abdominal lesions, could not help but be of aid to all of us. For, other things being equal, our mortality rate in cases of bowel obstruction is in direct ratio to our ability to make an early positive diagnosis.

The statistical statements presented to you tonight are gleaned from a review of the surgical literature of the last eight years. The personal opinions expressed are the result of the experience gained in the performance of 2,000 abdominal sections, which sections were done by me in this institution in the past eight years.

Ileus is commonly divided into three types: Adynamic, dynamic and mechanical.

Adynamic ileus is the type due to atonic paralysis of the muscularis of the gut, and in consequence is characterized by the total absence of peristalsis.

It is the type most commonly found post-operatively—post-operative ileus.

It is the type which often causes us the gravest concern. Nothing but the nicest surgical acumen will save us from the fatal error of reoperating on an already greatly handicapped patient. A sharp, clean-cut, differential diagnosis is absolutely necessary, and the many anxious moments that I have spent in coming to a definite conclusion, a conclusion which meant so much to the patient, are mainly my excuse in taking up your time with an otherwise so trite a subject. The causes producing an adynamic ileus are many.

First of all, let me dwell in some detail on the causative factors which we meet most frequently in our daily work.

1. Localized septic peritonitis.

All of us have seen some of our cases of suppurative appendicitis, supposedly successfully operated on, particularly if associated with rupture, begin to go wrong along the second or third day.

The abdomen begins to distend, the distention increases, yet there's no particular abdominal rigidity or tenderness; the patient begins to vomit. Enemata fail of results, the temperature is but little elevated, the distention continues to increase, the vomiting, however, does not—it may

*Read at the March 6, 1917, meeting of the Englewood Branch, Chicago Medical Society.

even become less; the pulse rate grows more rapid, the respiratory movements become shallow and embarrassed, the patient grows livid and rapidly passes out—unless luck is with you.

This is not a death due to the localized peritonitis having become general, but a death due to adynamic ileus.

2. General septic peritonitis.

General septic peritonitis is so frequently the cause of adynamic ileus, the two so often coexist, that it is extremely difficult to put each in its proper order of causation of the symptoms we are attempting to interpret. One's operative technique is not infrequently, at least in part, a causative factor in the production of adynamic ileus, as the following etiological factors will show.

3. Prolonged violent handling of the gut.

4. Prolonged exposure of the gut—evisceration.

5. Severe traction on the mesentery.

6. Prolonged efforts at taxis.

7. In cases of endocarditis an embolism of the superior mesenteric artery may produce an adynamic ileus. The onset is very sudden, the fatal termination occurs early.

8. Thrombosis of mesenteric veins, following a septic thrombophlebitis of the portal, such as we occasionally see follow a hemorrhoid operation or a purulent appendicitis, will also produce an adynamic ileus. The onset here is less sudden than in the former type, but its fatality is no less sure.

The last two conditions are, fortunately, rare.

In 20 years of more or less active surgical work I have met this type of an adynamic ileus but once.

9. Adynamic ileus may also be produced *reflexly.* This is a very important type, and quite difficult of diagnosis.

It is in *pneumonia,* and particularly a day or so after the pneumonic crises, that we see this type most frequently.

I shall never forget a case, which occurred in my earlier years, where a most stubborn obstipation associated with emesis following pneumonia actually reached the operating table, and where nothing saved the patient from an abdominal section but the fact that his bowels moved while the anesthetic was being administered.

Diaphragmatic pleurisy is also occasionally causative of an adynamic ileus.

10. Spinal cord lesions occasionally produce this type of ileus.

I believe I shall be able to bring out the salient points in the diagnosis of an adynamic ileus better by contrasting them with the symptoms of a mechanical ileus; therefore I shall delay the discussion of its diagnosis until we reach the differential diagnosis of these two types.

Before proceeding to the treatment of adynamic ileus, it may be well to say a few words with regard to its prophylaxis, its prevention.

As pointed out in the enumeration of the causes of adynamic ileus, not a little may be done in the ordinary routine of our abdominal technique to lessen the likelihood of its occurrence.

It is well to bear this fact constantly in mind in our intra-abdominal manipulations. The proper dietetic perparation of the patient is also of considerable importance. I think it well worth while to speak here of the systematic administration of Bulgarian lactic acid bacilli during 2 or 3 days preceding the operative interference. While my own experience is limited to a rather small number of cases, my colleague, Dr. Stevens, has employed the method in quite a series of cases and informs me of the distinct benefit the patients receive from it in lessening the annoying meteorism so commonly following an abdominal section.

I am fully aware that the statement I am about to make will seem distinctly heretical to some. I am fully aware, that the praxis is positively condemned by surgical authorities for whose judgment I have the greatest respect, yet I cannot help to advocate the praxis, namely, the routine administration of small doses of morphin during the first 24 hours after an abdominal section. I am in the habit of giving hypodermically 1/8 gr. of morphin combined with 1/60 gr. of strychnin every 4 hours for 4 doses.

I have done so routinely for a good many years, and I have yet to regret it or to see the slightest harm from it.

On the contrary, I am convinced that it quite measurably increases the bodily comfort of the patient—there is none of that restless threshing about, little of those bitter complaints about gas pains and yet in nowise is the distention increased or the necessary peristalsis inhibited.

The strychnin is added with the definite purpose of overcoming any inhibitive effects the mor-

phin might have on peristalsis by its stimulation of the non-striated muscle fibres of the muscularis of the bowel.

Treatment: All of you are, of course, thoroughly familiar with the various carminative enemata. The 1-2-3 and S-S are by-words in our institution. To those unaccustomed to our ways, I might add that 1-2-3 means 1 oz. of magnesium sulphate, 2 oz. of glycerin, and 3 oz. of water. S-S is an ordinary soap suds enema.

An oxgall enema: 3 drachms to 1 pint of water or an enema of alum 3 drachms to 1 pint of water are also very popular.

An ordinary molasses enema has often proved efficacious in my hands when all others failed.

Gastric lavage will often stop the most intractable emesis. This therapeutic measure is one of the sheet anchors in the treatment of adynamic ileus.

The French school advocates the use of electric massage, the galvanic current. My own experience with it is rather indifferent.

Eserine, 1/60 gr. every 2 hours, hypodermically, occupies the front rank in the German surgical literature on the subject. Atropin, 1/60 gr. every 2 hours is also frequently advocated.

During the last 2 or 3 years I have placed my greatest reliance on pituitrin, an ampule such as is used in obstetric practice, given hypodermically every 3 or 4 hours.

I believe the use of this therapeutic agent to be a distinct advance in the treatment of adynamic ileus.

Dynamic Ileus.—In this type of ileus the obstruction is produced by an excessive peristalsis, a spastic contraction of the gut or rather segment of gut even to the size of a lead pencil.

Dynamic ileus is most frequently met in lead poisoning. In any and all doubtful cases of bowel obstruction one should always bear this possibility in mind.

Tyrotoxicon poisoning, as occasionally found in milk or ice cream poisoning, is another causative factor.

Dr. Hibbard, a very promising young Englewood physician, whom many of the older members here will well remember, was the victim of such a dynamic ileus.

Mechanical Ileus.—While by no means the most frequent type of ileus, mechanical ileus is, from the viewpoint of the surgeon, the most promising.

In a study of 1,000 cases of acute intestinal obstruction, Gibson found:

35 per cent due to strangulated hernia,
19 per cent due to intussusception,
19 per cent due to adhesive bands,
12 per cent due to volvulus,

the remaining 15 per cent being divided among the other various causes of mechanical ileus. For purposes of description mechanical ileus is conveniently divided into two groups. Group A, in which the ileus is produced by

Strangulation.—In this group not only is the lumen of the gut closed, but its nutrition and the nutrition of its mesentery is destroyed, or if the destructive process in the tissues has not gone quite so far, its nerve supply has been so seriously compromised by the compression that a paralysis of the gut, an adynamic ileus, will result even after the mechanical obstruction is relieved.

This not infrequently accounts for a death after an apparently brilliant operative success. Intestinal obstruction is more common in the small than in the large intestine.

The greater mobility of the ileum, its proximity to the various hernial orifices, its relation to the appendix and Meckel's diverticulum, the frequency of adhesive peritonitis among its coils all favor the occurrence of strangulation. The one exception is obstruction by rotation, volvulus, which is more common in the sigmoid than elsewhere.

As stated above, the conditions which most frequently produce mechanical obstruction of the bowel are, strangely enough, conditions situated external to the abdomen proper, namely, the external herniæ.

Inguinal-Femoral-Umbilical-Ventral. — The most frequent type is the inguinal hernia. In women, however, femoral hernia is more often the cause of obstruction than inguinal. Femoral hernia is, on the whole, the more dangerous type. It produces not alone obstruction but the more important strangulation much earlier than inguinal hernia; and this on account of the rigid, inelastic walls of the femoral canal, formed by Gimbernat's and Poupart's ligaments.

If a knuckle of bowel becomes incarcerated in

this rigid canal, the pressure of the unyielding ligaments produces an early pressure necrosis.

Operative relief in strangulated femoral hernia must come much earlier than in inguinal or even umbilical hernia if one expects to be able to avoid resection with all its attendant risks. It is also well to remember this likelihood of early pressure necrosis in our manipulation, and in efforts to deliver the incarcerated gut even moderate traction is apt to cause the necrosed or partially necrosed wall to give way and flood the abdominal cavity with its septic contents.

Umbilical hernia is also a frequent source of bowel obstruction, on account of the pockets and diverticula, which it commonly contains. Loops of gut readily slip into these pockets and become strangulated. It is for this reason that "reduction en masse" frequently fails to relieve obstruction in this particular type of hernia. The various types of *internal hernia,* while on the whole rare and still more rarely diagnosed before operation, are yet a fruitful source of bowel obstruction.

Of those occurring in the upper abdomen diaphragmatic hernia is probably the most frequent. It is often traumatic.

The larger part of the small gut will sometimes be found in the pleural cavity.

I have had two such cases under my observation. Improper closing of the opening made into the meso-colon of the transverse colon in a posterior gastro-enterostomy has been, particularly in former years, the cause of a hernia into the lesser peritoneal pouch.

The hernia of Treitz, a hernia into the duodeno jejunal fossa, and a herniation of the gut through the foramen of Winslow into the lesser cavity are among the rarer forms of internal hernia. In the lower half of the abdomen we find herniæ in congenital and acquired peritoneal pockets, particularly about the cœcum and sigmoid the peri-cecal and inter-sigmoid herniæ. Properitoneal hernæ, particularly about the inguinal region are frequently the cause of obstruction.

Volvulus, a twisting of the gut on its long axis, is as I have said, responsible for about 12 per cent of cases of mechanical obstruction. It occurs most commonly in the sigmoid; only about one-third of the cases are found in other parts of the gut.

It is a condition found usually in adult life or later adult life.

In an analysis of 121 cases collected by Gibson the average age proved to be 45 years. Chronic constipation and the resultant overdistention of the gut, with consequent traction and lengthening of the mesentery are considered predisposing causes.

Intussusception, invagination of the bowel, on the other hand, is most frequently found in infancy. Seventy per cent of all cases of intussusception occur in the first year of infancy, and 52 per cent at the ileo-cecal valve; 20 per cent are enteric, small gut into small gut, and about 10 per cent are colic.

It is, however, also seen in adult life, a polypus or rather the dragging of a polypus, is usually the starting point. I have seen a carcinoma of the sigmoid by its sheer weight drag and invaginate the sigmoid until the tumor mass appeared at the anus.

Our knowledge of the causation of intussusception is rather vague, particularly is this true of the cases occurring in infancy.

Here the lesion occurs suddenly, like a lightning flash from a clear sky, and nearly always in well nourished, healthy infants. Atony and distention of one part of gut, with an active peristalsis of another seem to be necessary factors. Constipation also seems to play a role.

Angulation of the gut, due to fixation of some point on account of adhesions, or constriction of the gut due to *adhesive bands* produce obstruction of the bowel in about 19 per cent of all cases.

The likelihood of adhesive bands or adhesions producing angulation should always be thought of primarily in a patient who has been the subject of a previous abdominal section and whose external hernial openings have been found negative. Meckel's diverticulum may, and does, act in the same obstructive way as an adhesive band. The same is true of the remnants of the vitello-intestinal duct.

Group B. Cases in which the obstruction is produced by *Obturation.*

The lumen of the gut may be closed by obstructing agents acting from within the lumen or by producing pressure from without. Tumors within the gut:

Cicatrices due to syphilis-tuberculosis, or foreign bodies such as enteroliths, gallstones, fecal

impactions, all belong to the group of causes acting from within the gut. Personally I have but once seen a gallstone produce an obstruction, and only once did I have the opportunity to operate for bowel obstruction produced by an enterolith. Carcinoma and neighboring abdominal tumors are the principal causes of obstruction by pressure from without.

Diagnosis.—A fully developed case of mechanical ileus presents no diagnostic difficulty. The cardinal signs of acute abdominal pain, vomiting, distention, absolute obstipation, and extreme prostration and shock are always present; but to positively differentiate an adynamic from a mechanical ileus or to attempt by the symptoms presenting to definitely locate the obstructing lesion requires no little diagnostic skill. Let us take up somewhat in detail the various symptoms and contrast them in the two conditions.

Pain.—In mechanical ileus the pain is intermittent and very severe, increasing in intensity as the peristaltic waves attempt to overcome the obstruction; in adynamic ileus there is comparatively little pain, at least pain is not a pronounced feature.

Abdominal tenderness, if any, is general in adynamic ileus and entirely dependent on the degree of peritonitis which accompanies it, while in mechanical ileus a marked local abdominal tenderness not infrequently marks the location of the obstruction.

Vomiting, while of course present in both types of ileus, in adynamic ileus vomiting decreases both in amount and frequency as time goes on, while in mechanical ileus it increases both in amount and frequency the more time elapses from the beginning of obstruction. It might be well to say a word in regard to the so often mentioned fecal vomiting. I have never seen it. All that is usually fecal about it is the odor.

The vomiting of ileus is one of simple overflow. First the gastric contents are vomited, next a bitter bile-tinged fluid; this is soon followed by the regurgitation of the foul putrefying fluid collected in the gut above the point of obstruction. This is not a reverse peristalsis, but simply an overflow. Johnson maintains that vomiting of feces is only possible if a gastro-colic fistula occurs. Murphy, in the August number of 1914 of his *Clinic,* very aptly says:

"He who waits for the presence of fecal vomiting to make his diagnosis of ileus, will pass the undertaker on the patient's doorstep." He further says:

"Fecal vomiting just misses out on becoming one of the post-mortem signs of intestinal obstruction."

Peristalsis.—In adynamic ileus peristalsis is entirely absent, while in mechanical ileus the peristaltic wave is very marked indeed.

Borborygmus is the sound produced by small explosions, which occur in the dilated bowel in the effort of the peristaltic wave to overcome the obstruction. It is a very important differential diagnostic sign. The stethoscope is just as important an instrument of diagnostic precision in the differential diagnosis of these abdominal lesions as it is in the diagnosis of chest lesions.

Temperature is never present in mechanical ileus, at least in the beginning, while in adynamic ileus it is rarely absent, due to the associated or causative factors.

Certain clinical facts will help materially in our efforts to definitely locate the point of obstruction. If the onset is sudden, if the history fails to disclose an increasing obstipation, which has finally become absolute, we can safely dismiss all obturation obstruction and feel confident that we are dealing with a strangulation. The pain is also much greater in strangulation, more apt to be continuous than in obturation obstruction.

The history of a previous abdominal section will always direct one's attention to a possible obstructive band or to an adhesive angulation. The age of the patient is of some help, when you remember the great frequency of intussusception in early infancy and the late occurrence of volvulus. A careful inspection of all external hernial openings should never be omitted.

The surgical interference necessary to relieve a bowel obstruction varies, of course, with each positive lesion. I shall, therefore, limit my remarks as to the treatment of mechanical ileus to a few pertinent general observations. First of all, every operation for bowel obstruction should be preceded by a thorough gastric lavage. If this is neglected your patient is very apt to drown in his own fluid. A profuse emesis is almost sure to occur while the anesthetic is being administered, and your patient will die of a septic schluck-pneumonia, no matter how brilliant your

operative interference. Then one must always remember that a patient with bowel obstruction is an extremely poor surgical risk. He is usually in great shock, and if the obstruction has gone on for any time at all, extremely toxic.

Henceforth all surgical manipulations should be done with all speed consistent with safety.

Quite often a rapidly made artificial anus will prove a life-saving measure, when the actual relief of the obstruction may then be left to a more favorable time. If, however, an effort to relieve the obstruction is attempted, it is essential to have a definite plan in mind.

Remember that above the point of constriction the bowel is dilated, distended, below collapsed.

Nothing is so detrimental to a successful issue than haphazard fishing around for the point of constriction.

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SOME BODILY EFFECTS OF DEPRESSING EMOTIONS.*

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The problems of the emotions and the influence of the mind on the body have been of increasing interest in recent years. This question has been attacked not only by psychologists and psychopathologists, but also by physiologists and even surgeons. In other words, we are coming to realize more and more that disturbing, depressing emotions may play a decided rôle in producing bodily symptoms which we have been in the habit of always assigning to physical causes primarily, such as toxic and infectious processes of one sort or another.

I shall not discuss in this paper the possible effects of ideational processes upon bodily activity, but I may mention in passing that purely ideational processes, such as we see in conditions of self-observation without fear, suggestion and simulation of all kinds, may affect the activity of the voluntary nervous system, but not that of the involuntary nervous system, and even in the case of its action on the functioning of the voluntary nervous system it can produce results only for the brief period during which the ideational process is in activity.

Emotions may be classified for the purposes of this paper into two main groups: 1, stimulating or synthesizing emotions, such as joy, hope and their allies; and 2, depressing or disintegrating emotions.

The most typical, marked and important of the depressing emotions, which are unpleasant, painful and disintegrating in their effects, are fear, anxiety, apprehension and any of the lesser or more complex manifestations of fear; anger, disgust, grief, hate, shame, bashfulness, sorrow, resentment, jealousy, envy, and the like. Fear, pain, rage and shock of any sort, especially if sudden and intense, are powerfully depressing to the organism.

Let us take fear and shock as the most pronounced in their disturbing action, and consider the range of their possible effects.

We shall not concern ourselves in this paper with the mental manifestations that may be the ultimate outcome of these emotions. It is sufficient to enumerate such mental phenomena as illusions, hallucinations, overscrupulousness, overconscientiousness, and overreligiosity, fears of commission of sins and fears of punishment, such phobias as claustrophobia and agoraphobia, insistent or fixed ideas of one kind or another, aprosexia, states of confusion, states of abulia and uncontrollable impulses, amnesic and paramnesic conditions, disturbances of the sex impulse, states of self-condemnation and self-depreciation with perhaps ideas of suicide, feelings of loss of personality, dual and multiple personality—in brief, we have here all sorts of functional psychopathic states, now being classified under the psychoneuroses and psychoses.

Let us limit ourselves to the bodily effects of these depressing emotions.

In general, we may say that the effects may be transient or prolonged, and may involve the voluntary or involuntary nervous systems, or both.

To a great extent the organic constitution of the individual plays a considerable rôle in the determination of the number and kind of phenomena which we may find. Thus the ductless glands, the integration of the vegetative or involuntary nervous system, and the stability or irritability of the voluntary nervous system are hidden factors not to be forgotten. In addition to this the life experiences of the individual and the development or suppression of the individual instincts or emotional trends, in other words, the

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dominant and recessive emotional dispositions, must be given an important place in this connection.

It may be worth while enumerating in running fashion the main manifestations which may result from fear, shock and their cohort. The voluntary muscular system may show trembling, shaking, paresis, paralysis, convulsions, rigidity, contractures, disturbance of standing and walking, choreiform movements. The sensory symptoms may include anesthesia, paresthesia, analgesia, hyperesthesia, kinesthesia and loss of joint sense, and here too we may find affections of the special senses, such as blindness, contraction of the visual fields, deafness, loss of smell and the like. The skin disturbances consist of vasomotor, secretory and trophic phenomena, including horripilation or gooseflesh, pallor, reddening, cyanosis, perspiration, sudden graying of the hair, and according to some, even lasting vasomotor, trophic and secretory phenomena, diffuse or localized. The respiratory system may show apnea, dyspnea, increased rate of breathing, and pseudo-asthma; and the larynx may become paralyzed with resulting aphonia. The disturbance of the cardiovascular apparatus may lead to such symptoms as syncope, precordial distress and pain, palpitation of the heart, tachycardia which may be paroxysmal, bradycardia, cardiac arrhythmia, increased blood pressure, and some believe even edemas and cyanosis.

The genito-urinary system may present alterations in the amount of urine (polyuria frequent), frequency of micturition, emotional glycosuria, suppression of menses, sexual impotence, frigidity or sexual anesthesia, excessive pollutions, and even pseudo or so-called nervous pregnancy.

In the sphere of subjective symptoms we may come upon headache, fatigue and fatiguability, dizziness or vertigo, insomnia.

Temporarily dilated pupils and increased tendon reflexes are frequently consequent upon emotional upset.

Even the blood may show changes, as shown by Cannon, with increased adrenalin content and increased coagulability.

Morton Prince[1] has found temporary dilatation of the heart lasting during the period of emotional excitement, even of such pronounced degree as to lead to temporary insufficiency of the mitral valve and heart murmurs, in persons who were examined as candidates for civil service appointments, but who were apparently in normal health.

Férê,[2] Peterson and Jung,[3] Sidis and Kalmus,[4] Sidis and Nelson,[5] and Wells and Forbes[6] have investigated the so-called psychogalvanic reflex, in which there is a generation within the body, as the result of active psycho-physiological processes, sensory and emotional processes, but not purely ideational processes, of electromotive forces causing galvanic deflection with the galvanometer. This psychogalvanic reflex is probably of two types, one originating in the muscles and the other in the sweat gland activity.

Finally we must not fail to mention the disorders of the gastrointestinal tract incident to emotionalism of a depressing nature. Here we find decreased secretion of glandular activity (dry mouth, inhibited secretion of gastric and intestinal secretions), inhibition of the movements of the stomach and intestines, with loss of appetite, indigestion, nausea and vomiting, and diarrhea.

It is thus seen that depressing emotions may cause disturbed functioning of almost any part of the body, whether supplied by way of the voluntary or involuntary nervous systems.

Although, as a rule, these phenomena are transient and pass off with the disappearance of the depressing emotional state, in other cases, especially if the shock is sudden and pronounced or frequently repeated, but not so intense, more or less prolonged, post-emotional disorders may result, the location of these phenomena depending upon the organic stability of the entire nervous system, with its voluntary and involuntary portions, and on the activity of the ductless glands. It is the weakest, most susceptible, most irritable or most unstable portion of the nervous system which is attacked. Hence it is not surprising that the emotional upset may strike anywhere in the voluntary or involuntary nervous systems.

The bodily effects of the emotions have been studied particularly by Darwin,[7] Pawlow[8] and his followers, particularly Orbelli, Vasiliev, Mishtovt, Babkin, Savadsky, Hornborg, Bickel and Sasaki, Cannon[9] and his co-workers here in America, Crile[10] and such psychologists and psychopathologists as Janet,[11] Dejerine,[12] Boris Sidis,[13] Mor-

ton Prince,[14] Stanley Hall,[15] William McDougall[16] and others.

The chief experimental work in respect to the bodily effects of the emotions has been done by Pawlow and his followers, Cannon and his coworkers and Crile.

Pawlow's experiments and results have been quoted so widely and frequently that I need not dwell on them at any length. He demonstrated that by means of the pneumogastric or vagi nerves which innervate the stomach the central nervous system can act directly on the secretions of the stomach. Pawlow made a gastric fistula in a dog, the espohagus was exposed, opened and sewed to the edges of the skin wound, so that food taken via the mouth did not enter the stomach, but fell out through the opening before reaching the interior of the stomach. At the time of this sham feeding, chewing and swallowing of food relished by the dogs were followed in a few minutes by a flow of natural gastric juice seen in the side pouch of the stomach, this continuing for some time after the cessation of eating. Others have confirmed this in clinical cases in which the esophagus was closed. The chewing of an indifferent substance like gutta-percha is not followed by the outpouring of gastric secretion.

Cannon reviews the evidence in support of the claim that worry, anxiety, and the stronger affective states such as fear, and rage, and also pain, cause a decrease or stoppage of the gastric and intestinal secretions and also an inhibition of the movements of the musculature of the stomach and intestines. The evidence here is definite and positive from the experimental and clinical standpoints.

Cannon has further shown that in pain and great emotion, in other words, in times of great stress for the organism, the blood is flooded with sugar as a result of changes in the liver with the transformation of stored carbohydrate (glycogen) into glucose, the blood supply to the internal abdominal organs is lessened and is distributed in full measure to the heart, lungs, central nervous system and limbs, muscular fatigue ensues, and the blood becomes rapidly more coagulable, and at the same time there is an increased secretion of adrenalin from the adrenal glands into the blood stream. This reaction is reflex and purposive, being necessary for the preparation of the bodily mechanism for flight or fight, the increased blood sugar being useful as a source of muscular energy, the increased adrenalin in the blood acting as an antidote to the effects of fatigue, the vascular changes produced by adrenalin being favorable to supreme muscular exertion, the changes in the respiratory system also being of use for increased effort, and the increased coagulability of the blood being of the greatest utility in case of injury to the body, thus being an adaptive, protective mechanism against possible hemorrhage.

All of these changes of a bodily nature accompanying violent emotional upset are, it is plain, but organic preparations for flight, fight or possible injury. The body seems to be preparing itself for a great emergency—for a fight.

William McDougall's views harmonize with the contentions of Cannon.

And Crile has come to similar conclusions independently, from his clinical, surgical experience, backed up by his experimental work.

Crile's views are in line with those of Stanley Hall, who has studied fear from the phylogenetic viewpoint at great length.

Crile has developed his views in a most interesting and suggestive manner. Laying his groundwork on the principles of adaptation, integration of the nervous system (as worked out by Sherrington), natural selection and phylogenetic association (Darwinian principles), Crile believes that in fear there is a stirring into activity of all the defensive and offensive mechanisms acquired during phylogeny and required for the survival of the organism, which thus prepares itself for flight or fight—for meeting the situation before it in the manner in which it has become used by phylogeny to meet it efficiently.

Here Crile brings in as the real fighting machine his kinetic system, consisting of the brain, the adrenal glands, the liver, the thyroid and the muscles, in the first three of which he finds histologic changes constantly in these states. He compares the manifestations of fear to the phenomena observable in Graves' disease and in athletes at critical points in the performance of their feats, and even believes that exophthalmic goiter may result directly from fear.

As Crile himself puts it: "The brain is the great central battery which drives the body; the thyroid governs the conditions favoring tissue oxidation; the adrenals govern immediate oxida-

tion processes; the liver fabricates and stores glycogen; and the muscles are the great converters of latent energy into heat and motion."

In times of great bodily stress from whatever cause, he contends, it is these organs which are most stimulated into activity and come to the rescue, so to speak, and, in their stimulation of the bodily activities, there is a reversion to older phylogenetically useful types of bodily activity with survival or self-preservation as the goal. No matter what the original inciting cause or causes may be, the end-results are the same. Hence, whether it be fatigue from overwork, hemorrhage, drugs, infections, insomnia, foreign protein injection, Graves' disease or fear, we have the same organs stimulated, an overworking of the kinetic system, and a host of symptoms depending upon this.

Like Crile, Stanley Hall discusses, but from a somewhat broader viewpoint, the reversionary tendency to phylogenetic types of activity which occur so regularly in disintegrating emotions, seen most typically in fear and shock.

In times of great emotionalism, then, we have a breaking through or tapping of some of the reservoirs of power or reserve stores of energy, a statement which would be agreed to by William James,[17] Boris Sidis, William McDougall and Cannon, as well as Crile.

Important in this connection is the rôle of the ductless glands. Cannon lays stress upon the adrenal gland, while Crile considers both the thyroid and adrenal gland.

The vegetative nervous system is given consideration in this connection by Cannon, but not by Crile. I cannot discuss the vegetative nervous system[18] in this paper, but we must remember that this is the involuntary nervous system, and the disturbed functional activities produced by emotionalism must act through the vegetative nervous system in order to affect any visceral organs or the peripheral secretory, vasomotor and trophic functions.

Adrenalin injected into the body produces the same symptoms that are produced by stimulation of the sympathetic nervous system, and it is believed that in these times of crisis brought about by distressing emotions, it is by virtue of the stimulation and overactivity of the sympathetic nervous system, further stimulated by the increased adrenalin outpouring into the blood stream, that the various internal vegetative or visceral manifestations are initiated.

Sympathetic irritation or stimulation produces inhibition of those functions which are not essential for the purpose of fighting or meeting the crisis, and thus allows of free activity on the part of those functions which are useful for the organism at these times.

The system thus clears the decks, we may say, for action. There is preparedness for bodily war upon the source of the depressing emotion or shock.

And whether it is a source of emotional upset, a toxin, an infection, a drug or what not, the body tends to revert to the same types of activity to stand up under the attack, with immediate self-preservation as the end directly in view, ontogenetically and phylogenetically speaking.

Instead of speaking of the bodily *effects* of the depressing emotions, it would be more correct to speak of the bodily *accompaniments* or rather *manifestations* of the depressing emotions. Thus William James, in his Principles of Psychology, Volume II, p. 448, in giving his theory of the emotions, which he believed applied to the coarser emotions at least, uses the following words: "My theory, on the contrary, is that *the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes* IS *the emotion.*" (Italics James'.)

REFERENCES

1. Morton Prince: Physiological Dilatation and the Mitral Sphincter as Factors in Functional and Organic Disturbances of the Heart, Jour. of Med. Sci., Feb., 1901; and The Occurrence and Mechanism of Physiological Heart Murmurs (Endocardial) in Healthy Individuals, Med. Record, April 20, 1889.

2. Féré: Pathologie des émotions; and Note sur les modifications de la résistance électrique sous l'influence des excitations sensorielles et des émotions, C. R. Soc. de Biologie, 1888, p. 217.

3. Peterson and Jung: Psychophysical Investigations with the Galvanometer and Pneumograph in Normal and Insane Individuals, Brain, Vol. XXX, July, 1907.

4. Boris Sidis and H. T. Kalmus: A Study of Galvanometric Deflections Due to Psycho-Physiological Processes, The Psychological Review, September, 1908, and January, 1909.

5. Boris Sidis and Louis Nelson: The Nature and Causation of the Galvanic Phenomenon, Psychological Review, March, 1910, and Jour. of Abnormal Psychology, June-July, 1910.

6. Wells and Forbes: On Certain Electrical Processes in the Human Body and Their Relation to Emotional Reactions, Arch. of Psychology, March, 1911.

7. Charles Darwin: The Expression of the Emotions in Man and Animals.

8. Pawlow: The Work of the Digestive Glands, English translation.

9. Cannon: Bodily Changes in Pain, Hunger, Fear and Rage; also Results of Recent Studies in Ductless Glands, Jour. A. M. A., Nov. 18, 1916.

10. Crile: The Origin and Nature of the Emotions; also his Man—An Adaptive Mechanism.

11. Pierre Janet: See especially his two works in English, The Mental State of Hystericals and Major Symptoms of Hysteria.
12. J. Dejerine: The Psychoneuroses and Their Treatment by Psychotherapy, English translation by Jelliffe.
13. Boris Sidis: The Causation and Treatment of Psychopathic Diseases.
14. Morton Prince: The Unconscious.
15. G. Stanley Hall: A Synthetic Genetic Study of Fear, A. J. of Psychology, April and July, 1914.
16. William McDougall: An Introduction to Social Psychology.
17. William James: The Energies of Men.
18. See, for example, Eppinger and Hess: Vagatonia (English translation by Kraus and Jelliffe, as No. 20, of Nervous and Mental Disease Monograph Series); and Gaskell: The Involuntary Nervous System.

NASAL DYSMENORRHOEA AND THE GENITAL AREAS OF THE NOSE.*

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After months of study and work on the possible reflex arc from the genitalia through some of the disputed tracts of the spinal cord up to the spinal portions of the trigeminus and ramifications through the crura of the pons, the cerebrum and the cerebellum, I came to the conclusion that this one phase of the subject would be a lifetime study in itself, consequently I shall leave out most of the descriptive nervous anatomy, as that may be found in any standard work on that subject.

Nasal Nerve Supply.—The nerves of ordinary sensation are the nasal of the ophthalmic, filaments from the anterior dental branch of the superior maxillary, the vidian, the naso-palatine, the anterior palatine, and nasal branches of the sphenopalatine ganglion. Branches of Meckel's ganglion are linked with the facial and sympathetic by the petrosal nerves.

The direct connection of the sympathetic nervous system is demonstrated and illustrated in the larger works on anatomy. I have here a schematic chart from Morris', 1907, Anatomy, page 999. It shows the direct connection from the hypogastric plexus to Meckel's ganglion.

The sympathetic is closely associated with the trigeminus nerves and I doubt not that filaments of the sympathetic accompany all of its branches.

Mucosa.—The mucosa lining the nose is known as the Schneiderian. It is inseperably united to the periosteum and perichrondium over which it lies. It is highly vascular, especially over the turbinated bones. It continues throughout the accessory sinuses where it is thin and pale. The upper one-third of the nasal cavity is known as the olfactory region, where the epithelium is non-ciliated and columnar; to this locality are distributed the filaments of the olfactory nerves.

Blood Supply.—It is derived largely from the spheno-palatine branch of the internal maxillary artery which enters the nasal cavity by the sphenoidal foramen. Its internal branch, known as the posterior nasal, supplies the meati, the turbinated bodies, the ethmoid cells, the maxillary and frontal sinuses. Its other internal branch, known as the artery of the septum, courses along the septum to the incisor foramen.

The septum is also supplied by the anterior ethmoidal branch of the ophthalmic artery, which enters the nasal cavity with the nasal nerve.

The posterior ethmoidal cells, the roof of the nose and upper part of the septum are also supplied from the posterior branch of the ophthalmic artery.

Veins.—They form a deep plexus in the mucous membrane, the deeper ones being especially large and frequently appear like cavernous tissue. *This is found developed most largely in the whole of the lower turbinated structure and in the posterior border of the middle turbinated bone.*

These deeper arteries and veins often lie in juxtaposition to one another, whether in bony canals, as the sphenopalatine foramen and the ethmoid cells, or close to the bone and cartillage, as on the septum and along the turbinated bones, so that *the vasomotor dilatation of the artery opening the afferent blood channel at the same time compresses and narrows the venous efferent vessels, thus mechanically contributing to the passive congestion of the capillary and cavernous blood spaces of the erectile tissues.* The arterioles have, proportionately to their size, more of the muscular layer than they have in the regions of the body unsupplied by erectile tissue. From their deep situation they tend to pursue a corkscrew course toward the surface and the venous sinuses. These arterioles in the deeper layers are spaces in adult life, much enlarged in a mucosa when it is the site of inflammatory change. The more superficial net work consists of vessels not so large as the deeper channels of the erectile tissue.

Vasomotor dilatation means not only an exudation of the serum of the blood vessels into the

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stroma and a consequent swelling of it, but simultaneously is a direct discharge into the glands on the surface of the mucosa. Around the ducts of the glands, whose mouths usually lie in some sulcus of the surface epithelium, there is at these openings a more or less thick net work of capillaries. In many places this is very well marked, as Zukerkandl pointed out. A vasomotor dilatation of these capillaries would mean a considerable constriction of the gland outlets. This would cause the dilatation of the acini. As the vasomotor excitement subsides, the superficial capillaries cease to cause this compression and the mucous contents are liberated.

Vasomotor System.—The blood vessels supplying a nerve terminate in a minute capillary plexus, the vessels composing which pierce the perineurium and run for the most part parallel with the fibers; they are connected by short transverse vessels, forming narrow oblong meshes, similar to the capillary system of a muscle. Fine amyelinic axones accompany these capillary vessels, viz., the VASOMOTOR FIBERS, and break up into elementary fibrils, which form a network around the vessel.

Horsley has demonstrated certain myelinic fibers running in the epineurium and terminating in small bulboid tactile corpuscles or end bulbs of Krause. These nerve fibers, believed to be sensory and termed nervi-nervorum, are considered to have an important bearing upon certain neuralgic pains.

Lymphatics are abundant and large, and communicate with the lymphatic spaces around the branches of the olfactory nerve; these spaces again communicate with the sub-dural and subarachnoid spaces in the cranium (hence may carry infection from nose to meninges).

Before reading or relating to my cases I shall briefly state what others have done in this field.

Mackenzie's Reflected Nasal Phenomenon.—In 1883 Dr. John N. Mackenzie reported his researches on this phenomenon. He found a well defined sensitive area, whose stimulation, either through a local pathological process, or through the action of an irritant without, is capable of producing an excitation which finds its expressions in a reflex act or in a series of reflected phenomena. This sensitive area corresponds with that portion of the nasal membrane which covers the turbinated corpora cavernosa. All parts of this area are not equally susceptible to irritation, the most sensitive spots being probably represented by those of the membrane which covers the inferior half of the lower turbinated bone, and the erectile body on the septum immediately opposite.

Genital Spots of Fliess.—In 1887, Dr. Fliess, of Berlin, reported a series of cases in which he found that these genital spots swell during the menstrual period, bleed easily, and are somewhat cyanotic, they are sensitive to the touch of a probe. During labor a swelling of the erectile tissue of the nose was noted at each uterine contraction.

His first experiments were with cocaine. During an attack of dysmenorrhea, applications of a cocaine solution were applied to the genital spots; the pains in the back and abdomen ceased after from five to eight minutes, and did not return until the effect of the cocaine wore off. *If only the turbinates were touched the headache ceased, but not the abdominal pains. If only one side was treated the pain on the opposite side of the abdomen was relieved.* He then sought for permanent effects, using bipolar electricity, the galvanocautery and trichloracetic acid on the genital spots with a large percentage of success, as most of the cases had no more mensfrual pains.

Nasal Reflex in Obstetrics.—In 1908, Dr. Koblanck observed the connection between the nose and the genital organs. In obstetrical work he finds that two different effects can be secured by different technic. If the parts be pencilled with cocaine, pain will be relieved, most promptly and effectually if the application is made about the middle of the first stage of labor, and if the pains are due to muscular contractions and not to pressure. *If the tubercle be rubbed firmly with a smooth glass rod, the uterine contractions will be stimulated.* The gynecological applications are more numerous. Dysmenorrhea can be relieved by the cautery of this region in the nose. Some cases of amenorrhea which, in his opinion, depend on onamism, are cured by reducing the swelling in the nose by which the abnormal tendency is reduced and the vicious habit given up. In a similar way he has reduced abnormal sexual irritability in men. Sterility may also sometimes be removed.

In 1914, Dr. Emil Mayer reported a series of ninety-three cases and has treated almost as many more since then (this is the largest group of these cases that I have found recorded in America). In replying to his critics, he states, that many disputed the results he claimed to achieve, viz; about sixty to seventy per cent. of symptomatic cures. The reason of the poor results is due to a misconception as to the actual site of these genital spots and of the tuberculum septi.

Genital Areas of the Nose Described.—None of the descriptions of these spots (so-called) that I have read are as precise as they should be. There seems to be a sense of mystery surrounding them and their locality, therefore I shall endeavor to give a simpler description of these AREAS (not spots). The erectile tissue of the nose, like that of the sexual organs, like the cock's comb, rapidly grows in volume at the advent of adolescence: the

venous sinuses of the nasal erectile tissue become larger, due evidently to physiological, vasomotor excitement.

The more superficial network of blood vessels is not so large as the deeper channels of the erectile tissue, and vary in different individuals. *Its development has a close relation with the beginning of sexual life, since it is only seen in its full extent after adolescence is well established, and atrophies in old age.*

It is found along the lower border of the middle turbinate as its anterior extremity. It is frequently fairly well developed on the posterior border of the septum, forming some of the tissue going to make up the tubercle of the septum, seen at the upper part posteriorly on each side of the vomer, opposite the lower or posterior end of the middle turbinate, and the inner or posterior part of each inferior turbinate. They are not easily demonstrable on the cadaver because the mucous membranes shrink and the blood vessels relax.

Instruments Used.—I use the Stearn or the Hagler hard rubber speculi. They are similar to an ear speculum. I would advise you to try a large size ear speculum in the nose and see if you do not get a better view. The other instrument used is a regular applicator wound with cotton and moistened with cocaine and dipped in a few crystals of trichloracetic acid. I use the acid because it has a limited caustic action, not destroying tissue to the depth that phenol or other escharotics do. If it is necessary to do more radical cauterization, then use electricity.

I assume that the nose is not in any way obstructed. If there are obstructions, they must be treated first.

Special stress is laid on the importance of treating these areas only. All of the workers reporting this condition have emphasized this precaution, because the mucosa elsewhere in the nose is much thinner and more subject to cicatricial changes.

These areas themselves bleed very easily at the menstrual periods. This is one of the overlooked causes for recurrent nose-bleed or epistaxis, especially in adolescence.

REPORTS OF THE AUTHORS' CASES

Case 1.—February 3, 1913, Mrs. M., age twenty-eight years. History: Severe headaches, nose stopped up for three or four days. Had these at intervals of three to six weeks; menstrual history not asked at the first visit. Findings; turbinates congested, left middle one pressing septum, septum slightly deflected to left, mucosa hypersensitive. Treatment; cocaine 4% and adrenalin. Rx. Ung. Adrenalin et cocaine, t. i. d. February 19, 1913; returned feeling better than she had since a girl. On further inquiry additional history is: headaches and cramps every three to five weeks since fifteen years of age, occasionally severe enough to confine her to bed for two or three days. Treated in a large eastern city for "uterine cramps," although as she stated, the doctor could not find any abnormality and he treated her for her nerves. February, 28, 1913. Some pelvic pains; same treatment, with prompt relief, menstruated three days, no pains. Advised acid cauterization of the genital areas. March 5, 1913. Applied 4% cocaine, then trichloracetic acid crystals; some tenderness, not very painful. I saw the patient every two days, on the sixth day the slough had cleared and the surface looked clean, so I repeated the treatment on the 11th, the 17th, and the 24th. Three days later menses appeared painlessly. Shortly after this she left the city and was not seen until June, 1916; over three years and still has painless menses.

Note—On the patient's first return and on hearing her additional history, the author was dubious as to the connection of the nasal treatment to the complaining organs. He supposed she had a cocaine euphoria. This doubt was not dispelled even on the second treatment until he looked up the reflex reported by Mackenzie and latter by Fliess and others.

Case 2. Miss T., aged twenty-one years, office clerk. History: Nausea, severe premenstrual headaches for one day, almost makes her crazy, had to take large doses of paregoric to get a little relief. Doctor said her womb and passages were normal. Findings: Nose normal except for the cyanotic appearance of the genital areas. Patient looks haggard and pale. Treatment: cocaine and adrenalin tampons in nares. In ten minutes relieved and looked like another woman. September 15, 1913, trichloracetic acid applied and repeated. September 20 and 26. October 2, menstruated with some pain, promptly relieved with cocaine. Cauterized with trichloracetic acid on October 6, 11, 16 and 22. October 24, menses painless. Eight applications. July, 1916, no pains to date, almost three years.

Case 3. Miss H., aged twenty-three years. Dressmaker. History: Bearing down pains in pelvis, backaches, headaches (occipital and frontal), fidgety (nervous). Had womb stretched by woman doctor, no relief. Findings: enchondrosis of septum right side. Inferior turbinates swollen. Treatment: April 4, 1914, cocaine and adrenalin to genital areas. April 10, spur removed under local anesthesia; healed in two weeks. Menses May 1, some discomfort, local cocaine and adrenalin treatment with prompt relief. May 7, trichloracetic acid applied; quite sensitive. May 14 and 21, not so sensitive as first application. Menses present May 26; painless. July 20, patient returned after two painless menstruations, stating that

some sharp pains were present. Local treatment of cocaine and adrenalin, trichloracetic acid applied and repeated July 25, 30 and August 5 and 10. Menstruated August 16, painless. Patient not heard from in over nine months; next patient reports that "Miss H. never felt better in her life."

Case 4. Mrs. J., aged twenty-seven years. Canvasser. History: Always had colic and general weakness a day or two before menses appeared. Had a miscarriage one year ago; was curretted and pronounced well, and everything "O.K." locally, as far as the doctor could determine. Findings; turbinates swollen and mucosa generally inflamed. Treatment: cocaine and adrenalin, did not entirely relieve patient. Returned in the evening, 25% cocaine applied, some relief, but not as in previous cases. Moistened cocaine crystals did not give entire relief. Patient requested cauterization, or as she called it, the acid treatment, thinking that it might do what it had done for others she had heard of. Trichloracetic acid applied April 7, 1915; very painful. Requested another trial, which was applied on the 14th. This was also painful, she blew her nose, which started a hemorrhage on the right side. This lasted two hours before it was stopped by packing the naris with gauze moistened with permanganate of potash, grs. v to water oz. 1. Patient decided that was enough. She sent me patient No. 9, so I feel that she was not angry, as I thought she might have been. She is partially relieved by cocaine and adrenalin unguentum.

Cases 5, 6, 7, 8. June 8 to August 11, 1915. Histories similar. Ages eighteen to twenty-five years. Office clerks, stenographers and bookkeepers. Severe pains, (uterine colic) headaches, backaches, faces pale and distracted, one almost hysterical. Note—It is only when the pain is severe that the female seeks for relief, a moderate pain is borne as a matter of course.) Findings; noses quite normal except for the turgescence present, especially around the genital areas. Treatment: Cocaine and adrenalin. After menstruation ceased the trichloracetic acid applications at five-day intervals. Results uniform, viz; painless menstruation at the following one or two periods, after which they were not heard from until I wrote them in July, 1916. Three replied that they were well, an aunt stated that Case 8 was in New Jersey and never complained since the treatment.

Case 9. Miss N., aged twenty-eight years. Dressmaker, referred by Case 4. History: Menses every three weeks, painful and scanty, flows freely one day. Treated by ten or twelve doctors since she was a girl of fifteen. Findings; large spur or exostosis of septum on lower right side. Turbinates swollen. Treatment: Cocaine and adrenalin twice daily for two days, gave great relief. September 8, removed spur unler local anesthesia. Menstruated, September 23, 1915. Usual premenstrual distress, relieved by cocaine and adrenalin. Trichloracetic acid applied September 25, 30 and October 6, menses almost painless October 13. Three more treatments on October 16, 20 and 25. Menses present November 6, and painless. February 7, 1916, returned with some pelvic distress and headaches. No pain for three months and menses every four weeks. Treatment repeated every five days for four applications, February 10, 15, 21 and 26. Menses March 5, painless. Patient has been free from these pains up to the last inquiry, February 1, 1917, or one year.

Case 10. Mrs. J. S., aged thirty-two years. History: Pains all her life since menses appeared at age 14, exhausted for a week after menstruation. Usually in bed for two to five days. Had one child; it died at age of four years. Three miscarriages, one about 7th month, one at 4th month, last one a year ago about 2nd month of pregnancy. Curretted twice, leucorrhea five years ago, treated three months; none since then. No relief by drugs or douches. Sedatives help only while their action lasts. Findings: Small nose, almost closed by congested conditions. Cocaine and adrenalin reduced swellings, showing hypertrophy of middle turbinates, greater on left side. Treatment: Cocaine and adrenalin twice daily for three days until menses were well established, relief pronounced but not entirely relieved. July 10, 1916. Partial left middle turbinectomy. July 31 menstruated with usual symptoms, promptly relieved by cocaine and adrenalin; not confined to bed as usual, some discomfort at night, not anything like they were.

August 5, 11, 16 and 23, trichloracetic acid applied. Menstruated August 27, almost painlessly; only slight uneasiness first day. Menses lasted four days. First time she has not had to give up housework in years.

Tried to locate patient October 1. Letter returned, "not known here."

The results of this series are; seven symptomatically cured (may be eight) as far as I could ascertain by writing them. Case 4 was little benefited. Case 10 doubtful as to results. Case 8 I took aunt's word for her niece's condition. SELECTED CASES ONLY seem to be benefited, viz., those who are readily relieved by cocaine applications. Those who do not respond to it as in cases 3, 4, 9 and 10 are not so certain of apparently permanent relief as those who do.

A Plea to the General Practitioner

I suppose that the gynecologist, as a systematic routine, examines the genitalia for uterine versions and flexions, but the general practitioner often overlooks the careful examination of the clitoris. This is often the basis for a lot of trouble. In my earlier career at the old Illinois Clinic, I have seen and examined hundreds of females and found many long hoods or prepuces that harbored decomposed secretions and caused chronic inflammation of this sensitive organ. Often the prepuce becomes adherent and a circumcision is necessary. Any amount of medication or douches would not relieve this condition unless special attention were directed to it.

CONCLUSIONS.

That a demonstrable symptomatic reflex arc exists between the nose and genitalia is evident. That many of these cases of real torture, as portrayed by their countenances, are promptly relieved, often with a rapidity that is surprising. The relief obtained certainly does make the patients grateful.

Others have relieved labor pains (muscular), corrected amenorrhea, removed the desire for onanism, affected a few cases of sterility, and reduced sexual irritability in men.

Some of my fellow practitioners have failed to obtain as high a percentage of symptomatic cures which I attribute to two things; one is that they expected all cases of disturbed menstruation to be immediately relieved. Second, they have the idea of spots instead of areas. These areas are more extensive in one patient than in another, but reasonably constant in locality as seen through the nasopharyngoscope.

If the reading of this paper will be the means of enabling any of you to relieve one of these nerve-racked women of dysmenorrhoea, I shall be well repaid.

I thank you for your attention.

DISCUSSION.

Dr. George Schmauch stated that he was personally acquainted with the work of Drs. Fliess and Koblanck, and had seen many of the cases as reported, but he doubted the permanency of the cures. It may be that there, as here, in the earlier stages of enthusiasm in the 80's and 90's, the first doctors thought they had a general cure for these female and male pelvic pains; whereas this treatment applies only to a selected class.

Dr. Mark T. Goldstein was pleased to know of this work being done by someone, because the specialists that he referred patients to for this condition treated it lightly. He related a case of a doctor's niece who had been examined and treated by several doctors here and in the East, for her pains and not relieved. He advised his doctor friend to treat her nose or have it treated. The young lady (a virgin) had her nose cauterized and was cured of her pelvic distress and has remained so for many years.

Dr. E. L. Cornell asked as to hemorrhages.

Dr. Barnes: These areas often bleed easily, they may start to do so even from a slight friction with plain cotton. The nose bleed of young men and girls at the stage of adolescence is frequently due to the sexual irritability present.

Dr. W. H. Holmes requested the physiology of the phenomenon. This is still in the experimental stage. All I can say is that I believe it to be through the sympathetic system. The conditions observed (as previously stated in this paper) by Drs. Fliess and Koblanck, can be produced on most of these patients.

Dr. E. McGinnis stated that he operated on the nose of a male and that he was called to see the patient because of an hemorrhage. On arrival the patient stated that he had had an erection and then the hemorrhage started. This paper tonight sheds some light on the connection and cause for the bleeding. He also cited a case of a young lady that liked to have her nose treated because it caused sexual excitement. This again demonstrates, that by irritating these areas the genitals are affected.

BIBLIOGRAPHY

1888, John N. Mackenzie: Trans. Am. Laryngol. Assn., p. 81.
1895, Jonathan Wright: Dis. of Nose, Am. Jour. Med. Soc., May 1.
1897, W. Fliess: Relation Nose and Female Genitalia.
1908, Koblanck: Deutche. Med. Woch., June 11.
1909, A. S. Hobbs: Priapism and Nasal Disturbance.
1909, Lenox Brown: Epistaxis at Puberty, Packards Dis. N. and T.
1914, Emil Mayer: J. A. M. A., LXII, 6.
Gray's, Morris' and Piersol's Anatomy.

POINTS AND POINTERS.

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Mr. President and Doctors: Having been asked to prepare a paper on the subject, "Points and Pointers," my interpretation of it was this: "Points" are things I have observed from association with others and "Pointers" what I may see fit to suggest to others.

Twenty-five years ago this week I started in the practice of what I then considered the noble, self-sacrificing, elevating and grand profession of medicine, and after the twenty-five years of close attention to the work, in all its phases, I look around to see what points there may be that have left their indelible imprints on my years of practice. I am thinking first of all the diseases, accidents and operations that I have been more or less intimately associated with; but no, it isn't what I have found or what a fellow member of the profession has told me was good to do, or not to do for pneumonia, typhoid fever, appendicitis, gallstones, fractured hip, scarlet fever, smallpox, or measles that appear as points to remember, but what has been most prominent and always present, has been the impression of the men themselves in the practice.

Then, when I have decided that it is my fellow

*Read at the meeting of the De Kalb County Medical Society, April 27, 1917.

practitioners that are uppermost in the consideration of points, I begin to wonder in this way: Is it a peculiarly constituted individual that selects the medical profession for his life vocation, or is it the study of medicine in its various phases; its study of physiology, anatomy, materia medica, pathology, chemistry, dissection, obstetrics, surgery, its free clinics and hospitals, that tends to develop in an individual the unusual temperament which we universally find in the men of the medical profession, you all being thoroughly acquainted with him?

In this paper I prefer to make a few homely illustrations rather than to analyze the profession and you will have no difficulty in making your own analysis and saving me a whole lot of time.

1. Have you ever heard a fellow-member of the profession enter into any lengthy complimentary conversation with reference to any other member of the profession living within thirty miles of him, except, of course, at his funeral? No, they don't do that. You all know too well what we do.

2. Have you ever known a fellow-physician to go out of his way to keep another out of trouble, such trouble, of course, pertaining to the practice and possibly malpractice? I think not. At least, not any oftener than to make the exception that proves the rule.

3. Have you numerous recollections of a fellow-physician being called after the discharge of another, and after hearing the diagnosis of Number One, agreeing with him in every detail? Of course, taking for granted Number One had been right and entitled to the consideration. No, we don't look hard for a chance to present our fellow members with bouquets, except of onions, garlic or ragweed; and why is it? Is it our association with sick people, grunting chronics, crying babies and the injured that makes us so ornery, mean, narrow and selfish and all of it heaped upon our fellow members? I can hardly fool myself to say "Brother members" yet, although it would be a pleasure.

But whatever it is, it is slowly bringing about a self-destruction, and we are that short-sighted that we will not see slipping, in the public opinion, of the doctor's standing, compared with fifty or even five hundred years ago.

The public have heard us belittle the knowledge and ability of each other so often that they have lost a good share of their confidence in us, and can you blame them?

Now, until about twenty-five years ago this mutual condemnation kept only the sick, particularly the chronic sick, going around us in a circle, from one to another physician; but about twenty-five years ago a few of these chronics in some way occasionally broke through the circle and slid out on to a side track, which side track has gradually lengthened and broadened until now it is nearly as great a system as the old "I Knock Your Railroad." I refer to the great aggregation of osteopaths and chiropractics, who have become so numerous, strong and well thought of by the public that it is requiring all the power and strength embodied in the workers for the medical profession to prevent their being recognized by the state boards on an equal standard with the medical profession, and it will be but a few years when they will have the legal right to practice any and all branches of medicine, and they are building up their business wholly from our old, staid patients and their bank accounts from our monthly earnings, and we have only one eye open as yet, to the situation and its possibilities, and unless we get the other one open pretty soon, we will have coming to us one of the most powerful jolts we have had in years, and that jolt will impart such a combination of permanent injuries that we will be forever partially disabled.

These men are curing your and my chronics. Not all of them, of course, but a sufficient number of them to be making themselves recognized and credited with knowledge and ability equal to the average physician. And why not? Every one of us knows they have cured one or more of our chronic cases which we have treated for years, and like any physician, if they have only a few cures, particularly of chronic cases, that have been the rounds of all the doctors in reach, they establish a reputation that will build up a practice; as you all know, its the cure of the chronic that makes the community talk and boost the doctor, not your acute, self limited diseases, as they are hardly sick long enough to solicit the interest of the public or even immediate friends.

There are today 32,000 osteopaths and 15,000 chiropractics practicing their profession in the United States and they are educated men, with a

better knowledge of anatomy than the average physician, simply because the greater part of their study is anatomy and their treatments are based wholly upon anatomical study and manipulations.

I will let this conclude the first part of my subject, "Points," hoping, short as it is, that it may give you a nucleus for thoughts on the subject and thereby develop something far better than my few, crude efforts could.

Now, in order to fulfill my agreement, I have yet the questions of "Pointers" to consider, and I realize that here is where I must be careful, as for these I am fully responsible—the pages before were a recitation of existing facts.

I have no pointers to give you in surgery, materia medica, physical diagnosis, obstetrics, or gynecology. You probably, most of you, know as much, if not more, about these subjects than I do. Most of you have not given much thought to the question of the osteopaths and chiropractics and why they get their business and hold it; why they are on the increase every year; and as many succeed in making a living as the output of the medical colleges that are on the decrease. Now, why are they on the increase? It must be because they are a necessity; because there must be a demand for their methods of treatment.

How many of you have studied their theories and practices? If any of you have, you have found that their whole work and success depends upon something they do in their system of treatments to relieve one, or many, pinched nerve fibers. But, for me to start on the subject of nerves would be ridiculous, as it is a subject that fills volumes, fill libraries. But I may mention subluxation, excepting, of course, that some of you will sing the same old threadbare song of bunk, four flush, fake, tommy-rot and so forth, so for protection, I shall have to quote from Keating's Medical Dictionary. "Subluxation, a partial dislocation," meaning, of course, that there can such a condition.

But, as I have told you before, we have ignored the question of subluxation as applied to the spine, and it is too great a subject to be embodied in these few pages, so I will simply give you reference to Arthur L. M. Foster M. D.'s work on "Special Adjustments" and those of you who think it worth while may purchase the work, or one of the many others published by members of our own profession, and I shall make my arguments on subluxation from cases you are all familiar with—the subluxation of the arch or dome of the foot commonly called, "broken down arch."

None of you are satisfied in giving a bottle of liniment and some anti-rheumatic remedy to the patient that comes into your office complaining of lameness in one or both legs. No, of course not. You insist on his removing his clothing, shoes and stockings, and examining him for a cause and very frequently find it a subluxation of the arch of the foot, and when you do find this as the cause of his lameness, you treat and support the arch mechanically proper, and your patient is cured.

Now, it isn't because your patient's bony arch is flattening out that he suffers so much pain, walks as if his back were broken, and is unable to sleep all night after a hard day on his feet, but because the subluxation produces a pressure upon the internal and external plantar nerves, these nerves being the entire nerve supply to the powerful system of short muscles supporting the double bony arch, made up of short, solid bones and bound by strong ligaments; and any injury to these nerves will incapacitate the great mechanical foundation proportionately to the extent of the injury.

Now, when the arch starts to become subluxated, its bony prominences commence making pressure upon the nerve supply to the muscles and ligaments that make the arch, thereby injuring it and detracting from its function or work, therefore resulting in further increase in the subluxation as the muscles and ligaments receive impaired messages through their nerve supply and each increase causing additional damage, and more injury and more injury, with additional subluxation, until the arch is completely ruined and the whole important subject of curing broken down arches comes back to the relieving of a pressure or injury of the nerve supply.

Now, this theory will apply all the way through the anatomical study of nerves and bony impingement of nerves, and far more common subluxations are those of the spinal column; and as a consequence of these subluxations there is produced an impingement upon the nerves which pass through the inner vertebral foramina, corresponding to the vertabræ involved in the dis-

placement. This impingement is a direct result of the pressure produced by the altered position of the margins of the intervertebral foramina, and these foremina, normally, are only of sufficient size to contain the vessels and nerves which they transmit, and a decrease in size of any of these foramina results in a diminution of the space required by the nerves for the exercise of their normal function, thereby preventing the proper conveyance of impulses to the parts they control. And from our study of physiology, we learn that pressure gradually applied to a nerve first increases and later reduces its power to respond to irritants; and if the power of a nerve to respond to irritants is lost, it assuredly is unable to carry impulses.

Now, this is as deep as I see fit to go into the subject of nerves, sympathetic and spinal, as it is enough to show to any who care to be shown, what the possibilities are from subluxations, and, if interested at all, you will take up the study of the subject and get results you never have had before in the treatment of your chronic cases, when you are reasonably sure they have no destructive organic lesion. And I will content myself with reciting a few of my cases, with results obtained along the lines of reducing subluxation. My attention was first called to subluxation in the fall of 1908.

Case 1. J. A. W. was driving home at 10 o'clock at night when a large dog ran up behind his buggy letting out a loud, sharp bark, causing him to turn suddenly and he was unable to turn back. When I got to his place a half an hour later, found him sitting outside the house on a chair, head still twisted to one side. I did what looked reasonable in his case—tried to stretch his neck and turn his head—and I succeeded only partially, as I have learned since, as he never fully recovered, and I now believe if I had treated his case then, as I now do, three or four treatments would have corrected his trouble just as completely as we do our dislocated shoulder joints, but as it was the patient always suffered with headache, stiff, tired neck and died three or four years later with a stroke of paralysis.

Case 2. A. J. W. C., Maple Park, came into my office in August, 1914. When asked to take a seat he declined, saying it was too difficult to get up again. He carried his head to one side; his neck was rigid on the right side and lax and flabby on the left. Ten days before while tending the trip-rope on a hay fork, the load going up let loose and struck him on the head producing what the doctor called concussion of the base of the brain and severe strain of the muscles of the neck. The physician saw him twice a day for five days, and then told him there was nothing to do but to let it wear off, and he was constantly getting worse. Unable to lie down, unable to eat or sleep from the pain, and as he said, stiff neck and back. This man was six feet four inches tall and weighed 170 pounds.

Case 3. G. H., Malta, neck dislocated turning over in bed at five a. m. I got out there about 10:20; he and his wife say he had not moved a quarter of an inch since he turned and heard the snap in his neck; pulse 44 when I arrived.

Mr. H. died very suddenly about eighteen months later at a barn raising, died on the way home in a buggy. Did he have a return of his subluxation? When I saw him with a subluxation lying still in bed he had a pulse of 44. What might it have been riding home in the buggy after being stricken at the barn raising?

Case 4. A. D's man, 1915, was jerked violently by a horse which he was leading to water; severe pain in neck immediately; unable to eat or sleep. When I saw him he had been to the doctor every day; upon examination the right side of the neck was rigid, the left side lax; had lost eighteen pounds in ten days.

Treated him three times afterwards. Complete and highly satisfactory cure from patient's report.

The following histories are taken from a list of something over ninety cases which I have treated since August, 1916, and are not selected to bring out favorable results, but to classify conditions with results of treatment; and I will state here that if your diagnosis of subluxation is correct and they are reduced, you may expect every case to be improved and more than fifty per cent of them to be cured, and I refer to chronic cases of from three to twenty years' standing. All your acute subluxations you will cure in from one to four treatments, and when I say "acute" I mean the stiff neck, the acute cervico-brachial neuralgia, the acute lumbago, and so forth.

Case 5. The night of September 16, 1916, I was called to the country to see Miss N. N., twenty years old; found her sitting in a chair, head bound tightly with a towel, muttering and in a state of hysteria. The history from her family was, that she had been having these same sort of attacks for three years, every two to four weeks, and had been seen by seven different physicians during that time, who had diagnosed her trouble as gastritis, gallstones, duodenal ulcer, ulcer of the stomach and hysteria, and five of the seven had given her a hypodermic of morphin each time when called.

I looked over the abdomen and chest for troubles; found nothing, then examined her spine, found rigidity over the third cervical, sixth dorsal and ninth dorsal vertebrae, reduced the cervical and sixth dorsal with sharp distinct snaps, followed by sufficient relief that after three hours she went to sleep and slept all night. Came to my office September 20. Both had returned

to a state of subluxation and were reduced much easier, and with them the ninth dorsal, which I could not reduce at my first visit. She had ten treatments from September 20 to February 5, and since September 20 has not had one of her attacks.

On further inquiry I found that she was thrown from a horse five years ago and now that she is relieved of her back symptoms, she says they started soon after her fall, but continually grew worse, while all her pains and discomforts were referred to the front of the trunk and abdomen.

Patient and parents consider her completely cured.

Case 6. Miss M. C. De Kalb, fifty-one years old, consulted me for headache of fifteen years' standing and constipation of longer standing; had taken a 2-grain cascara pill every night for eight years. Examination revealed subluxations of the third cervical and fourth and fifth dorsal vertebrae; reduced them September 16, 23 and October 4, 1916. Did not see her again until April 18 this year when she reported saying the last week she felt that she needed another treatment and that she had had no headache since her last treatment, October 4, 1916, and no trouble with constipation. Examination revealed slight subluxation of third cervical, reduced easily. Says she is better than she has been in twenty years.

Case 7. Miss C. B. Cervico-brachial neuralgia most of the time for the last three years; had been treated with all the anti-neuralgic, anti-rheumatism remedies, all kinds of lights and vibration, mostly by myself. But when she returned in November, 1916, saying her old trouble had returned, I examined her spine and found the fourth cervical, fifth and sixth dorsal and ninth dorsal subluxated, and in four treatments had them reduced and her severe neuralgia cured, and by taking two treatments this year, eight weeks apart, she has kept free from all neuralgia and not one dose of medicine.

Case 8. Miss L. S., Maple Park, was leading a horse behind a buggy when it jerked back and pulled her out of the buggy, over the back seat and I saw her two years after while making a visit to her mother. Her history was, continued head, neck and backache. This was three years ago, and I had thought but little of subluxations, but did conceive the idea of stretching her neck and back by lifting her by her head, she weighing less than one hundred pounds and these stretchings were so satisfactory to her in relieving her headaches that they had paid me seven dollars, more than once, just to drive out to their place and lift her by the head a few times. Since making a study of subluxation I found and reduced the third and fifth cervical vertebrae with most gratifying relief.

Case 9. Mrs. H. W., sent for me January 15, 1917, with the history of constant headache for over two years; had taken numerous headache tablets and some various treatments; said she woke up with a headache, went to bed with it and if she woke in the night it was still there, and she was getting desperate. Examination revealed second cervical and fourth and fifth dorsal vertebrae subluxated. I reduced them that night. I saw her April 18 and she says she has never had a headache since that night.

Case 10. B. S., Cortland, driving a Ford poultry wagon, came to the office with his wife, and just as he was leaving said, "I don't know whether you could do anything for my backache. It's so bad I'm afraid I'll have to give up my job." I examined him as he was standing up and discovered a subluxation of the fourth lumbar and tenth and eleventh dorsal; reduced them standing up and his report is that for three days he couldn't get out of the house, but since then never has had the backache and pains.

Case 11. J. S., lumbago of three years' standing; reduced subluxation of ninth and twelfth dorsal vertebrae just once; never has had a return of the lumbago.

Case 12. Mrs. E. E. Waterman, persistent headache; found and reduced third cervical subluxation; relieved of headache for six weeks; returned for treatment April 18.

Case 13. A. W.'s daughter, eight years old, complained of lame side and hip for eighteen months; fourth and fifty lumbar vertebrae subluxated; reduced standing up; one treatment; cured completely; no return after two months.

Case 14. Mrs. W. constant headache; subluxation third cervical; came to office every week for four weeks, each time reducing the subluxation and curing the headache. Now, comes about once in four weeks, only when she feels the headache coming on; treatment takes about thirty seconds.

Case 15. B. J., December 6, 1916, driving over the east pike in an open roadster automobile; the driver got confused by bright approaching lights and drove off the pike and the car in tipping over, pinned Johnson under it. He was under the car about ten minutes. When I saw him at the hospital he had a complete paralysis of the right arm and partial paralysis of the left. Examination revealed a complete dislocation of third from fourth dorsal vertebrae, which I reduced by lateral pressure on the right lamina and spinous process, while strong traction was being made by the occipito-mandibular hold, followed by some sensation in right arm in about three quarters of an hour.

Next morning partial return of the displacement reduced much more easily than the night before, Doctor Rodney Wright being present and feeling displacement of vertebrae and their return to place and even beyond complete replacement, showing the extreme relaxation of its retaining ligaments. This vertebrae, after a week in the hospital, and each day being manipulated, as each day it displaced less, became fixed in nearly normal position. Nearly, I say, for the injury must have caused some thickening of the articulating surfaces, as there is some thickening and rigidity on the right side. On April 10th, I examined him and found that he had recovered, at a rough estimate, about eighty per cent of the usefulness of the right arm, and complete recovery of the left arm.

Case 16. Now, in another class I will report: Mrs.

S. T., whom I have prescribed for and treated for twenty years, all this time backache, headache, constipated, coated tongue and extremely nervous, all dating from a fall twenty-five years ago aggravated by a severe fall on a cement walk in the winter of 1915, since which time she seemed to have what was either an infected gall-bladder or bile ducts, coated tongue, jaundice, fermentive dyspepsia, and all the symptoms that go with these troubles, and the only time that she was at all comfortable was when taking large doses of sodim phosphate, calomel; about once a week and cholethic pills after every meal. October 27, 1916, I reduced subluxations of third and fourth cervical vertebrae, November 4 reduced fifth, sixth, and seventh dorsal and third lumbar; between November 4 and January 1, 1917, I treated her six times and when she left for California she took a small box of laxative pills just to have them should she need them. She has not had a particle of her old trouble since January 1.

Case 17. Mrs. D., March 13, I was called to see her for neuritis, as she called it; had been treated for the acute attack, cervico-brachial, for two weeks with no relief and was in bed when I called; on that visit I reduced a third, fourth and fifth cervical subluxation with almost immediate relief; visited her a week later and reduced the same cervical and fourth, fifth, sixth and seventh dorsal; the next treatment she had at my office and at that time told me she was relieved of a chronic digestive trouble she had had fifteen years. She has had four treatments at my office and a more pleased patient I have never had. She has gained twelve pounds since March 13 and eats anything she wants without distress.

Case 18. January 25 Miss E. D. consulted me, what you might term a physical wreck, with every symptom —sleepless nights, sciatic, unable to eat, anemic, roaring in the ears, headache and tachycardia, pulse 130. Examination revealed subluxations of second cervical; fourth, fifth, sixth, seventh and eighth dorsal vertebrae and an unusual condition all on the right side; the second cervical was reduced the third treatment; the dorsals were all reduced during the next four treatments. She has had in all, to date, twelve treatments. Headache practically gone; sleeps fairly well; sciatic no annoyance to her; pulse 80; has gained fourteen pounds since January 25. During her last call at my office April 17, she made the remark, "My worst days are twenty per cent better than my best days have been for the last five years. My victrola is gone"—meaning the noises in her ears which she said were so loud that she felt sure anyone in the room with her could hear them.

Now, Doctors, I am not giving these histories and results of my treatments to brag or to make you think I am doing great things, but to try to show you enough about these subluxations and their treatment to get you interested sufficiently so that you will look into the subject and get these satisfactory results yourselves, not with some new, untried remedy or treatment, but with a method scientifically applied, which has been in vogue for centuries, as the Bohemians, Germans and Hollanders found centuries ago, that by having their larger children walk up and down their spines, making pressure first on one side and then on the other, numerous acute and chronic ailments were cured.

Scientific men, familiar with the customs of our native Indians tell us that methods similar to those of the spine adjusters of today were used by their tribes as long as these aborigines could remember. They found that when one of their warriors or hunters became incapacitated for his vocation through chronic sickness, or as they believed, by being inhabited by the evil spirit, he was tied to a tree and his back vigorously pounded and these cures were most satisfactory, simply because it was just another way of relieving subluxations. And coming down to modern times, we are all more or less familiar with the fact that among athletes forcible striking of the back on each side of the spinous processes is often resorted to for the purpose of restoring to normal, the action of the heart and respiration of one of their members who is injured.

And how many times have you heard of a person being thrown from a buggy and getting up to find he has been relieved of a permanent lameness or pain by subluxation being produced by the fall?

If this paper, up to now, has made some of you feel that in the future, after looking your patient over thoroughly and being unable to find a cause for his ailment, that you will examine his spine, not expecting a tubercular spine, or a curvature of the spine, but for a possible subluxation, you will eventually be able to keep most of your chronics. Not very long, however, for you will cure better than forty per cent of them and benefit most of the others, and at least find out for them the same thing the osteopath or chiropractic will, if they go to them.

We have the advantage of the new-coming osteopath or chirapractic, as we are already here; know the people; have them coming to us; and if we do not neglect this important part of our examination and treatment, in connection with our knowledge as to medical and surgical treatments, when needed, we should be able to stop the inroads these men are making into our busi-

ness and at the same time have the satisfaction of curing a class of cases which we heretofore have been able to do but little for, such cases as I have mentioned in my list.

After these remarks and histories, many of you are still skeptical; think the snap we get when we reduce a subluxation indicates nothing and could be produced in any vertebræ. But, nevertheless, none of you can get away from the fact that cures are what you are after, and how you get them makes little difference. It is just to get them. Now, if these cures are produced by some mental impression, as some of you say, what is the difference? Does it make any difference whether you get your results from diet, materia medica, operations, mental suggestion, hydrotherapy, prayer or fright? No. Therefore, my pointer is to look for these troubles, study the subject carefully, try the methods of diagnosis and then try the treatments.

There is one great trouble with all of us. We get into a rut. Now, that is bad enough, but what is worse is staying in the rut, and the only difference between the rut and the grave is, the grave is a little deeper.

My last pointer is, "Doctors, get together"; and instead of having the "DeKalb County Medical Society" have it, "The DeKalb County Co-operative Medical Society" and make it so in every sense of the word, co-operation.

The Chicago Medical Society brought out in one of their meetings this motto: "It behooves the medical profession to begin to hang together; they have too long hung apart."

Springfield, Illinois, March 12, 1917.

Dear Doctor:

It is of *greatest importance* that *every* member of the medical profession shall *immediately* take an *active* part in *defeating* legislation now pending in the legislature at Springfield.

It is equally important that *you* lend your active *support* to certain *other* legislation which is of utmost importance *to you* and *to the public generally*.

House Bill No. 266 must be defeated. If this bill passes it will confer upon osteopaths the right to practice medicine and surgery in all their branches without requiring that they shall meet the same educational standards as are imposed on physicians. It establishes two standards of medical education—low standards for osteopaths, high for physicians.

It is a vicious bill in many respects and must be defeated. *It will pass unless you and all other physicians get busy now.* See, write or telegraph to your representative and senator at Springfield to oppose House bill 266. *Do it today.*

The rest of these letters you have all read, but heed the final instruction.

Finally, let us again hope that you interest yourself in this legislation and get your friends to do likewise. Get in close touch with your legislators. Remember this: The 800 osteopaths of the state have always been able to make a bigger impression on the legislatures than have the 12,500 physicians, because they *all* get busy in behalf of the legislation they want. They will *get what they want this time if you don't get busy too. Attend to this today.*

Yours truly,

DON W. DEAL.

This letter in itself should be incentive enough to make us turn over a new leaf and work as a unit, thereby having strength as a profession, as it is only in co-operation or union that we can attain strength, and not only that but how much more pleasant it would be doing business in that kind of atmosphere.

It would be a struggle full of hard work, a regular re-making for most of us, but it is possible. First, by having meetings every month; not in the afternoon, but one evening a month. All of us should be able to spare one evening a month to get together and to get thoroughly acquainted and thoroughly agreeable and at these meetings do everything for the betterment of the members of the De Kalb County Co-operative Medical Society, first, in preference to any members of any other society anywhere, and in the days and nights between these meetings, look out for the interests of any and all members.

Let the public understand that the medical men of De Kalb County stand together; let them understand if their family physician needs help in any way he will call for it early and as much as he needs and know that they will work together to the best of his interests as well as their own.

To even start to enumerate the advantages of such an organization would get me into such a bulk of paper that we would all be late for supper, so I am going to close, and as a starter, as I believe, in the right direction, I want to make this motion that you, Mr. President, appoint a committee of five members to be designated as "The Committee on Co-operation," their duties to prepare and read papers on any subject or subjects that tend for the betterment of the medical profession of De Kalb County, professionally, physically, morally, intellectually, and last, but not least, financially! And the benefits derived

from such a committee as a part of a co-operative medical society would certainly put De Kalb county on the map!

A DIAGNOSIS AND TREATMENT OF MORAL DISEASES.

E. N. STENN, M. D.,
CHICAGO.

The past fifty years has won a great victory over mortality and infectious diseases by reason of the progress of bacteriology and sanitation. But while contagious diseases have gradually diminished, we see on the other hand that moral diseases are growing more numerous. While typhoid, smallpox and diptheria retreated before our remedies, insanity, suicide and all forms of crime are advancing, and this makes it very evident that we should find some explanation or diagnosis of these moral diseases in order to arrive at some effective remedy.

At the dawn of the 19th century Dr. Henrotin wrote that "insanity was a moral sin of the insane" because, as he argued, "no one becomes insane unless he forsakes the path of virtue and of the fear of the Lord." On this assumption, gentlemen, the insane were locked up in dungeons, loaded down with chains, tortured and beaten because their insanity was their own fault. At that period Pinel of France, advanced the revolutionary idea that insanity was not a sin but a mental disease. This idea is now a commonplace one, but in his day and time it revolutionized the treatment of mental disturbances. We know now that insanity is a result of two factors, hereditary transmission and influence of environment. We know now that the individual insane patient is not much to blame. We know now that man does not become insane because he wants to, but rather because he cannot help it. We have as much insanity as we deserve. Insanity, like tuberculosis, is a social disease and society is responsible.

As to crime, which of course includes prostitution, the general opinion of lawyers, judges, and the people at large, is that crime involves a moral guilt because it is due to a free will of the individual who leaves the path of virtue and chooses the path of crime. This is to this day the current conception of crime and prostitution. According to this conception the assumption is that one can choose freely between virtue and vice. But modern psychology holds that there is no free will and demonstrates that every act of a human being is the result of an interaction between the personality and his environment. Erico Ferri of Italy, holds that in order to be a criminal it is necessary, to use his own words, "that the individual should find himself in such personal physical and moral conditions and live in such an environment that he cannot do anything else but be disposed toward crime." The idea of a free will is an illusion. Humanity has ever been fond of illusions. Time was when people believed that the earth was the center of the universe and that man was the center of creation. But Copernicus and Galileo came along and demonstrated that the earth does not stand still and that it is a grain of matter hurled into infinite space and rotating around the sun. All species of plants and animals were supposed to be created for man's use and pleasure. But in 1856, Chas. Darwin came along and destroyed the illusion that man is the center of creation.

The great remedy against crime has always been punishment. Bentham said, "Every time punishment is inflicted it proves its inefficacy, for it did not prevent the commission of that crime. Those unfortunate individuals who are struck by the law do not improve but become more antisocial through repeated relapses. When a serious crime is committed in this city the police turn their attention immediately to the ex-convicts. A future punishment does not prevent the commission of a crime. A man who is carried away by a violent passion is not checked by threats of punishment, because the volcanic eruption prevents him from reflecting. "Now a counterfeiter in committing his crime," says Flangieri, "must compel his mind to imitate closely the inscription of bill, letter for letter, including that threatening passage which says: The law punishes counterfeiting, etc., etc. Surely the counterfeiter cannot ignore the penalty that awaits him."

Crime is a natural and social phenomenon. Every crime, from the smallest to the most atrocious, is the result of the action and interaction of three principal causes, according to the positive school of criminology; the anthropologic

*Read at the meeting of the Stock Yards Branch of Chicago Medical Society, May 17, 1917.

condition of the individual, the telluric environment in which he is living and the social circumstances in which he is born, living and operating. There are those who consider poverty as the sole cause; if that were so, 1,000 out of every 1,000 poor ought to become criminals or prostitutes. It was Cæsare Lombroso who made a solid contribution to the subject of criminality by making anatomical studies of body and brain of hundreds of criminals, and in his book, "The Criminal Man," he emphasizes the importance of seeking the explanation of crime in the physical and psychological condition of the individual. He maintained that we must first understand the criminal who offends before we can study and understand his crime. Lombroso's work, by the way, adds a mass of evidence against the doctrine of free will. It is to Lombroso we owe the credit of working out the authropologic factor in the causation of crime, but his weakness consists in trying to remove not only the responsibility of the criminal, but also the responsibility of society. I like, however, his reasoning when he argues that society has no right to punish a man for coming into this world with a crooked nose or a misshapen head, neither can it have the right to punish him for what that head may compel him to do.

Of the second principal cause of criminality which is the telluric influence, Ferri says that in persons where the social life is the same the year round, breaches of discipline are more frequent in the warm months of the year. Crimes of sex are more frequent in the warm countries. Crimes against property occur mostly in winter. Crimes against the person are more frequent in hot countries and in all countries in the hot season. Jules Verne showed that a high altitude produces hilarity, and it has been argued that the Dutch are slow because they are low. A change of season brings with it a change of criminality. Buckle, in his history of civilization, gives civilization a physical foundation by finding its chief factors in the climate, geography and geology of the country. This is what we term the telluric environment.

The third principal cause of criminality is the social environment. Now, it is quite evident that economic misery has a great influence on criminality. The finest word picture which I came across in reading up the subject is by Enrico Ferri:

> Want, is the strongest poison for the human body and soul. It is the fountain head of all inhuman and antisocial feeling. Where want spreads out its wings there the sentiments of love, of affection, of brotherhood are impossible. Take a look at the figures of the peasants in the far off land of Campagna, the little government employe, the shopkeeper, the laborer. When work is assured, when living is certain though poor, there want, cruel want, is in the distance and every good sentiment can germinate and develop in the human heart. The family then lives in a favorable environment, the parents agree, the children are affectionate, and when the laborer, a bronzed statue of humanity, returns from his smoking shop and meets his white-haired mother, the embodiment of a half century of immaculate virtue and heroic sacrifices, then he can, tired but assured of his daily bread, give room to feelings of affection and he will cordially invite her to share his frugal meal. But let the same man in the same environment be haunted by the specter of want and lack of employment, and you will see the moral atmosphere in his family changing as from day to night. There is no work and the laborer comes home without any wages. The wife reproaches her husband for the suffering of his family. The man having been turned away from the doors of the factories feels his dignity as an honest laborer assailed in the very bosom of his family. And the bonds of affection and union are loosened in that family. Its members no longer agree. There are too many children and when the poor old mother approaches her son, she reads in his dark and agitated face the lack of tenderness and feels in her mother heart that her boy, poisoned by the specter of want, is perhaps casting evil looks at her and harboring the unfilial thought. Better an open grave in the cemetery than one more mouth to feed at home.

Of all the forms of crime that affect our present civilization or degeneration, the one in which social conditions are most plainly the leading cause is surely prostitution. Society is the real offender and not the unfortunate creature who is more sinned against than sinning. Dr. Joseph Greer of this city, in his pamphlet, "The Social Evil," says, "Modern prostitution is the logical outcome of centuries of abuse, oppression and robbery; woman, being the weaker sex, has suffered most and given most, but her vice is but the vice that men have pushed her into."

It is true, as some of you may argue, that want alone is not sufficient to make criminals of the suffering family, but we do hold that crime in all its forms is the result of the action and interaction of three forces, the anthropologic, the telluric, and the social. This gives us a clear under-

standing of things far better than the current idea that a man is a criminal because he wants to be.

So much for an explanation or diagnosis of moral diseases. Now what is our treatment? Just as it is nobler in the human mind to prevent war than to heal the wounded, so it is nobler to prevent crime than to punish. The remedies of the past concerned themselves not with the improvement of life but rather with the dispensation of justice or punishment. Punishment has always been imposed after the deed had been done. Punishment is a remedy directed against effects but it does not touch the cause. Penalties have the same relation to crime that medicine has to disease. After a disease has developed a doctor is called in, but he cannot do anything else but to reach the effects. On the other hand, if the individual and community had obeyed the rules of preventive hygiene the disease would probably have been avoided eighty times in one hundred. Our own Dr. Whalen states that probably fifty per cent of all cases of disease and seventy-five per cent of accidents could be prevented by reasonable precautions. Just as preventive medicine means application of remedies before disease becomes apparent, so the preventive treatment of criminality concerns itself with the application of remedies before crime becomes apparent. The legislator should apply the rules of social hygiene in order to reach the roots of criminality.

Right here you might say all this is very well in theory, but it isn't practical. So to be practical, if a crime is committed, punishment may be employed as one of the remedies, but it should be the very last and not the exclusively dominating remedy. Punishment strikes without healing those unfortunates who have fallen a prey to crime. In the majority of minor crimes committed by people who are not dangerous, the only punishment should be compensation of the victim for his loss. At present the victim is forgotten. For the graver crimes committed by persons inclined toward crime, segregation for an indefinite period. Under segregation the management must be scientific as it is now in our insane asylums. It is foolish to place an old soldier at the head of a penal institution. The director of Elmira Reformatory, which is probably the best penal institution in the world, is a physician, a psychologist. When a criminal is brought in he is studied from the point of view of anatomy, physiology and psychology, and the results speak for themselves.

My plea is for the adoption of scientific methods in the prevention and treatment of the moral diseases. At present moral diseases are endemic, let us try to make them sporadic.

PSYCHOTHERAPY IN OBSTETRICS*

H. W. Long, M. D.
ELMWOOD, ILL.

In the consideration of the psychical condition in obstetrics, we would not in the least minimize the work done along the line of surgery, antisepsis, therapeutics, etc. All have their place of usefulness and in their proper application excel every other means.

For some years past I have been interested in the study of heredity, particularly in the study of the mother during the gestation period, and as the opportunity offered I gave considerable time and care to the mothers soon to be. I listened carefully to the story they had to relate. I quieted their fears and anxiety the best I could, by explaining more or less the processes, what to expect and what to do. As a direct result of this I soon discovered that as a rule the psychic balance in those cases was good. Then I gave some attention to the psychic condition and in a majority of the cases obtained the most delightful results. The gestation and confinements were robbed of most of their terrors, but little if any nausea or discomfort during the period, the average time of labor much shortened and easier. No forceps, operations or lacerations, and no post partum hemorrhage, when time and attention could be given to get in harmony with the patient and obtain her co-operation.

Nearly all of my unpleasant experiences have occurred when I was called at the eleventh hour or too late to get acquainted with the patient. Very often one can break through the reserve and do very well, but too often we found it impossible.

I believe that by giving some time and attention to our patient all through the period of gestation, looking carefully into the psychic condition, as well as the general health, that we will save some lives, will most assuredly give our patients a normal and easy confinement, and oc-

*Read before Peoria Medical Society, June 5, 1917.

casionally with a total absence of any pain or suffering, our patient will make a rapid recovery and a complete involution.

This phenomenon has been noticed and we have been given the benefits of quite a number of observers and writers. To take note of just a few, e. g., Sadler calls our attention to the fact that the psychic conditions are not being given sufficient attention.

De Lee admits the too frequent use of anesthetics; and says that the direct result of the administration of morphin and scopolomine has increased the frequency of forceps operations, lacerations and post-partum hemorrhage. He also strongly condenms the use of pituitary extract, except in a real scientific indication.

Hillmer has obtained very rapid and uncomplicated deliveries by administering blue and black cohosh during the gestation period, although recent pharmaceutical investigations tend to prove that neither of these drugs have any very considerable influence on the uterus.

Almost every author and operator realizes the need of a well balanced psychical condition, but we have not been favored to any extent with methods for obtaining it. The fact of the matter is, it is not always so easy to do. There are a multitude of things and conditions to consider which are never the same in any two patients. There are also numerous methods of obtaining results. No routine method will produce the best or uniform results in all cases. A general plan may be devised but the minor detail must be bent and arranged to fit the needs of the individual.

In this discussion we will only consider the mother soon to be, who is physically normal; and it will best apply to primiparæ.

Perhaps it would be just as well to note some of the adverse conditions that should be overcome or changed for more favorable ones. The first is the tendency of the profession to give too little attention to the patient in the early months of gestation and this probably leads to the second —which is the habit of the patient of putting off the consultation till gestation is far advanced.

Another thing that is very troublesome and harmful and one that is very difficult of control, is the habit that some ladies have of recounting their own experience and that of others. The more difficult and terrible the experience the better it suits their purpose. They seem to take delight in filling the young mother's mind with tales of suffering and predict for her a terrible time. If this pernicious habit could be safely and completely buried it would remove a mountain of trouble. And the worst of it is, that it is not confined solely to the ladies. I have known some otherwise very good doctors to engage in this same habit, thus unwittingly inviting themselves into trouble, because it is a well pnown fact that any suggestible person may very readily assimilate a condition thus described, and having once done so, it may and very often does, get beyond her control, and until such a patient is relieved, most anything in the catalogue of nerves and many physical troubles may come to pass.

Too great a show of sympathy, or as a prominent Judge puts it—"a sob sympathy," is very destructive to the patient's will power and self-control.

An undue haste on the part of the accoucheur or the midwife is very destructive to the best interests of both the mother and the child. An unnecessary delay in the face of physical disability is just as pernicious.

We will now note some of the conditions that are more favorable to both the mother and the child. It has been my experience that if the mother is seen early in the term of gestation and can be interested in the affairs of life, in the care of herself and in her plans for her child, and will come to the office every week or two, make a report and receive counsel, that we have but very little trouble in keeping the psychic condition in a perfect balance. In this way the mental as well as the physical conditions can be followed, and any deviation from the normal can be found early and corrected before permanent injury results.

It has been found that frequently the mental changes that take place at this time are fully as noticeable and sometimes more pronounced than the physical and still remain within the range of the normal. The mental faculties undergo an evolution—a change more or less noticeable and permanent. These changes very often cause the patient some surprise and occasionally serious disappointment. And these are things that we want to give some attention to, so that our patient will not be surprised but train her to look for and take advantage of those changes. Otherwise,

when these strange mental actions—such as changes in disposition, likes and dislikes, fits of temper, crankiness, impatience, forebodings, and increased timidity come on, she will be entering a new world, much of which she only partially understands, and if left to her own devices very frequently becomes doubtful, then anxious and finally fearful of the coming event.

For some time it has been my habit to acquaint my patients with the process so that as the changes of gestation arrive, they have been looking for it and know its cause and the results to expect, and so are not worried or alarmed.

Few folks know how to relax and rest. Too frequently they rest like the Indian sleeps, i. e., with one eye open.

To rest thoroughly the entire muscular system must be completely relaxed. This is perhaps easier done than the next step, which is to relax the brain; and do not think; to accomplish the best results one must make the mind a blank, and after some training one can hold the mind blank for quite a while. Each patient is urged to practice relaxing and resting a few minutes several times daily, especially towards the close of the period.

More rest and refreshment can be obtained in ten minutes when properly done, than in one hour if the patient is under a strain physically or has some mental worry that keeps her mind whipped up and going all the time. If our patient succeeds well in relaxing and being able to control the mental functioning, we predict for her a normal and very easy confinement. Nausea and vomiting under such conditions become a negligible factor. I have never had the misfortune to meet a case of uncontrollable or pernicious vomiting.

Among other things she is told that pregnancy and confinement are normal and physiologic processes. This is the way the Lord has provided for us all to arrive. And as a normal physiologic process it should not be attended with any considerable amount of discomfort and suffering. There will be some work but no suffering to any extent if everything is normal.

When the contractions for parturition begin she has been made acquainted with the entire process. She knows what it means, what the results will be and the average time required. She will maintain the upright position or better, move about busying herself with her usual household duties, giving little attention and no assistance to the contractions at this stage, reserving her strength for a time when it will be more useful. When the dilatation has become somewhat complete she is encouraged to give some assistance to the contractions.

Should the contractions show a tendency to decrease in force and frequency she will take a kneeling position, resting her arms and head on the edge of a chair or the bed; or better still she may take the squatting position and sometimes this position is made more comfortable and easier maintained if the back is supported by the wall or some firm object. While in this position the thighs may be pressed against the abdomen by the patient clasping her arms around her knees. In this position gravity and the application of external force by the thighs, increases the expulsive force very materially. Occasionally a patient will think it impossible to assume this position; in such a case the patient should be assisted to assume the position slowly. As a rule it will only be necessary to maintain this position for a few minutes at a time and not a great number of times for engagement to take place.

Our patient is directed to relax and rest between the contractions. The more completely she can relax and rest between the contractions, the more perfect and rapid will be the dilatations.

All the conversation should be of a cheerful, optimistic and suggestive character. A nurse or an assistant who can relate an amusing incident, or give a good hearty laugh upon the proper occasion is worth many times more than one who tip-toes about and converses in awed whispers, or one who is uncongenial to the patient.

Soothe and encourage your patient—have her relax between the contractions—let loose and rest. If everything is going on right the perineum will be found soft and ready for full expansion needed for delivery.

If the perineum is somewhat rigid and the patient has a tendency to be nervous, complaining and apprehensive, she is not relaxed and is not responding well to the suggestions. Slow down and let her rest, look to her comfort. If she can compose herself sufficiently to sleep a cat-nap or two between contractions, the relaxation will be much more complete, and delivery can now take place without any serious injury or suffering.

If the above plan falls short, which it will at

times, a few whiffs of chloroform will aid your suggestions very materially.

Permit me at this point to make a few observations as to the management of chloroform. We should remember that it evaporates very rapidly in a dry atmosphere at room temperature and that it produces a *heavy* gas. At the beginning only a few drops should be placed on the mask, and the mask should be held four to six inches above the patient's face for a few respirations and then gradually brought down close. A little carelessness and too free use will allow the accumulation of sufficient gas in the bedding and room to keep the patient drugged and logy for several hours. Chloroform lends itself as an aid to suggestion much better than ether.

It is much more pleasant to take, is less stimulating, causing less irritation and excitement. In fact, the exciting stage and the nausea of chloroform anesthesia can be eliminated entirely in the majority of cases by properly administered suggestions, and at the same time obtain the most pleasing results with a surprisingly small quantity of the anesthetic.

If necessary the patient can very frequently be carried into complete hypnopsis without the aid of an anesthetic. When this is desirable and possible, the results are most satisfactory. The elimination of fear, nervousness and pain is just as complete and much more satisfactory than by any other method. It leaves in its wake no nausea and vomiting, headache or post-partum hemorrhage. The tissues dilate more readily, thus reducing to a minimum lacerations and forceps operations.

Great care should be exercised in the selection of nurses and assistants. They should be congenial and in harmony with the patient, and trained specially for this work.

CONCLUSIONS

It may be said that as a general rule suggestions are received in the same spirit and faith in which they are given.

The careless use of suggestion is on a par with the shotgun prescription and just about as certain of producing definite results.

The effects or results are not always immediate —hence it follows that one must be willing to lavish time and patience when required.

Even after much experience the reaction of any given patient cannot be foretold, and so, for obstetrical work the best results will be obtained only when the patient and physician have faith and confidence in each other, i. e., when tests and trials have been made so that each knows what to expect of the other.

When the effect can be obtained by suggestion or hypnosis, that we have been obtaining by drugs and anesthetics, the results are far superior. There is no after effect, such as shock, post-partum hemorrhage, nausea, headache, or nervousness. It will leave the patient composed and comfortable.

BIBLIOGRAPHY.

DeLee, J. B., Jour. A. M. A., Oct. 14, 1916.
Hillmer, Raymond E., Ill. Med. Jour., May, 1915.
Sadler, W. S., Ill. Med. Jour., May, 1915.

THE FOREIGNER A PREY OF MEDICAL QUACKS*

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Mr. Chairman, Ladies and Gentlemen: The title of this paper tonight is rather misleading. It would be more just instead of "The Foreigner a Prey of Medical Quacks," to call it "The Foreigner and The Medical Profession a Prey of Medical Quacks."

This meeting being devoted to economical questions which affect or may affect the medical profession, I thought it would not be amiss to discuss the medical quack, which is a factor of long standing in the economics of our medical fraternity, and, due to the chronicity of it, is paid very little attention to by the physicians.

It seems that one great effort in this direction was done for us a few years ago by *The Chicago Tribune*. The work done in the relation to quacks and patent medicines by the American Medical Association, while indirectly having helped the work of the *Tribune*, has had very little effect on the well being of the medical profession. The reason being, that the exposures by the *Journal A. M. A.* of the quacks and patent medicines has been limited to the medical literature only, which is not read by the laity. The work of the *Chicago Tribune* though, has done a great deal of good to our profession by opening the eyes, at least, of a part of the English reading public. I say, a part of the public, because in the majority of other newspapers the quack advertisements are still appearing on their pages,

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and in all probability are a paying proposition for the quacks, otherwise they would have stopped them long ago. But the evil of the quacks, since the exposure in the *Tribune*, has manifested itself to a considerably greater degree on our foreign cosmopolitan population, which has not been touched by the English papers. This is evidenced by the fact, that since the time of the above mentioned exposure, the foreign newspapers, Polish, German, Russian, Hungarian, Lithuanian, Bohemian, Italian, Slovenian, etc., have doubled or trebled the space of the quack advertisers.

It is true that some of the branches of the Chicago Medical Society may not see or feel the economical injuries produced by the quacks to the medical profession, but our branch and other similar branches, whose members find their practice mostly among the foreigners, ought to open their eyes not only to the economical loss they sustain through the practice of the quacks, but also to the fact, that the REGULAR profession is getting discredited in the eyes of the foreign population through the fraudulent and dishonest actions of the medical charlatans.

The foreigners, as a rule, do not differentiate between the regular physician, who does not advertise, and the advertising quacks. Quite the opposite; they look upon the advertising charlatans with considerably greater respect than upon the regular physician, as in their childish simplicity, they look upon everything printed in the papers as absolute truth. They do not understand even, that an advertisement is written and paid for by the advertiser, and innocently think that it is the newspaper that praises those physicians, because they are so good.

In order to understand the economic evil to the medical profession which quack practice brings, though we cannot bring correct statistical data, I think it will be enough to consider some of the following facts.

I have it from good authority, from a druggist who was in the employ of one of the quack offices, that the income of this office was, in the average, seven thousand dollars a month, that they paid ten thousand dollars a year rent for the office, that they had in their employ two licensed physicians, one a "case taker," the brains of the institution, getting four hundred dollars a month plus commission above a certain income, and one other doctor for the treatment of patients (by the way, a cocaine fiend), at a salary of one hundred and fifty dollars a month; a druggist on a salary of two hundred dollars a month and commission; an artist, making the models for the anatomical museum in connection with the office, also three or four other employees. No major operations at the fees the ordinary surgeons are getting, have been performed by them; the practice has been merely office practice, such as neurasthenics, genito-urinary practice, stomach and other internal diseases. The above described office is typical of all similar institutions.

Most probably every one of us remember, during the *Tribune* exposures, that when the mail of a certain quack was arrested by the government, it was found to contain in cash, for two days, over a thousand dollars.

One of the prominent Chicago quacks, a licensed physician, the "king of the quacks," so far as the amount of advertising goes, advertises not only his miraculous cures, but also his palatial residence which was lately built by the money earned in his wonderful practice.

This quack practice did not escape the eye of the shrewd business man. Medical offices, or so-called "Institutes," often connected with anatomical museums, one after another began to spring up in Chicago and all over the United States, controlled by laymen, who engaged licensed physicians and druggists to run their business. One of those artists is known to me personally. Years ago a poor drug clerk, later a druggist and assistant manager in a fake medical "institute," started about five or six years ago on his own hook, and later he had two institutions in Chicago and some two or three in other large cities in the United States. He is now opening another one in Chicago. From a sixteen dollar clerk, he lives now in a palatial residence on Grand boulevard, talks in thousands and tens of thousands, instead of single dollars and cents as before.

We must not lose sight of another type of quacks, which is not numerous, but very prosperous. These are the midwives, the manufacturer, so to say, of concoctions from herbs and other "old country" recipes, and the well known among the Russian, Polish, and German-Hungarian population, under the general name of "feldsher," which is practically a male nurse in the old country.

One of these types is in our midst on the west side, whose business in a Russian village was that of a barber and bloodletting. Notwithstanding the numerous indictments against this "professor," as he calls himself, his fortune grows; he is a possessor of three drug stores and of considerable real estate, and every new arrest means to him nothing more than a fine of twenty-five or fifty dollars, because his experience in Chicago made of him not only a "medical celebrity," but a good lawyer, which legal talent he obtained through the instructions of the highest paid lawyers in Chicago.

Another similar artist is located on Halsted street. He does a lucrative trade through the medium of circulars distributed in saloons, groceries, barber shops, turkish baths, etc. He plays the part of a teacher by "lecturing" to crowds wherever he can gather them, and recruits his patients from the same crowds. Not being a licensed physician, and not a physician at all, all his sins are covered by a diploma of a licensed lady physician with whom he keeps office together. There are a few indictments against that so-called "Doctor," and for the last two years the Illinois State Board of Health has been after him. The investigator for the State Board told me, that they could not get hold of him for the last two years, as he is constantly moving from one place to another, and because of the deficiency of funds of the Board for such purposes. While the second statement may be perfectly true, the first one may be questioned, as it is known to the neighboring durggist, physicians and to myself, that for the last two years this celebrated "Doctor" is enjoying daily from his window a few whiffs of the refreshing Halsted street air.

Next to this, in the practice of quackery, must be put the advertising druggists and their free dispensaries. The window signs, "literature" in various languages, of these temples of healing bear guaranteed promises to cure "rheumatism, headache, pain in the back, syphilis, sexual weakness, gonorrhea, pimples, nervousness, skin diseases, etc., etc." With the exception, that I will add, that they not only "recommend" medicines, but also examine the patients and prescribe. We have now a case against one of them for treating and infecting a boy of about twenty years old.

Now, if we add to it the little fry of the ordinary druggist, who is tempted to make a few extra dollars now and then by treating and prescribing for ignorant patients, we will cover the circle of quackery which deprives the regular medical profession of hundreds of thousands of dollars of their legitimate income.

If you will show me that any legitimate practitioner among the poor foreign population is able to keep such elaborate offices, pay the above mentioned high rents and carry on all the expenses the quacks are having—from office practice alone—then I will say, that all the above mentioned facts have no bearing on the welfare of our profession.

But I know that nobody can tell it. And if this is so, why then should we look on quietly, while we are robbed of our legitimate income by charlatans, impostors and blackmailers. And not only this, but as citizens, we should raise the cry against those robbers for pauperizing the poor and ignorant foreigners who cannot complain of a superfluity of money or even of a permanent decently paid job, as they are the most underpaid laborers, and, through extortions of the quacks, instead of rising in their health and in the standard of living, they are still more condemned to their insanitary conditions and insufficient and unhealthful food.

What is the reason of such a phenomenal financial success of the quacks, and how to overcome it?

1. Ignorance of the foreign masses.

2. Distortion of the idea of personal liberty by clever lawyers, which give to the quacks a standing in courts.

3. The quacks are organized. Their organization is rich in funds, and very able lawyers are in constant employ to defend any one of the members of their organization. And their funds, as I have heard but cannot substantiate, are very often used for illegitimate, as well as legitimate, protection, and lastly—

4. The apathy of the regular medical profession.

As to the means of fighting the quacks, I would not go into details. First, the causes above mentioned are to some extent indicative of the way in which we have to proceed in the protection of the poor foreigners and our own interests.

Secondly, the subject is naturally a very complicated one and will necessitate a considerably longer paper than the time I can spend.

Thirdly, I expect that in the discussion atten-

tion will be paid to the means of fighting the quack rather than to corroboration of the facts I stated, and

Fourthly, because I am going to conclude my paper by asking for a resolution to appoint a committee by our branch, which in conjunction with a lawyer, should take up that question and report on a detailed plan of action.

If this proposition will pass, I will feel that our time here has not been spent in vain.

The resolution passed and a committee consisting of Dr. G. Halperin and Dr. Krasnow was appointed to study the question and report at their earliest opportunity.

ASTHMA*

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Asthma is a condition characterized by intermittent paroxysmal dyspnea and vasosecretory disturbances, accompanied by prolonged expiratory murmur, great expiratory effort and sibilant rales over both lungs.

The disease rarely comes fully developed from the start, but is preceded by attacks of slight bronchitis with a tendency to wheezing. Later the characteristic paroxysms occur, usually foreshadowed to the patient by prodromal symptoms varying greatly but apt to be the same for each individual. These prodromes may consist of a general vague discomfort, or the opposite, a feeling of buoyancy, of drowsiness or depression, of symptoms of nasal irritation with itching, sneezing or coryza, perhaps only a peculiar taste in the mouth or epigastric oppression without loss of appetite. The patient learns to appreciate his warning symptom like an epileptic aura.

The paroxysm itself may come at any time, but oftenest after midnight; frequently is timed by the clock for a certain hour. The attack begins with a suffocating feeling of constriction in the throat or chest. A short, dry cough becomes rapidly, distinctly wheezing. There is soon marked distension of the chest and the patient seeks for more air, often going to an open window. He takes some position where the shoulders and spine are fixed so that he can use every effort of the accessory muscles to assist in breathing. The diaphragm is more or less in spasm, moves but slightly and is lower than normal. The face becomes livid and swollen. The eyes protrude and there is free discharge of nasal mucus with occasional sneezing. The cyanosis may become very great, the extremities cold and a clammy perspiration breaks out. Expiration is usually quite prolonged, even two or three times as long as inspiration and accompanied by marked wheezing with sibilant and sonorous rales which may be heard at some distance. On account of the spasm of the diaphragm the epigastrium is not retracted, or but slightly. There seems to be great difficulty for the same reason in getting the air out of the chest, and inspiration follows without a pause. On account of this prolonged breathing act, the respirations may be much less frequent than in health.

Inspection and percussion show marked signs of emphysema, the liver depressed and heart dullness reduced. Auscultation shows at first dry rales with wheezing. Later these become more moist with loud sibilant and bronchial sounds.

The ordinary attack lasts a couple of hours or more and the subsidence is marked by ability of the patient to cough up small pellets of grayish white tenacious matter somewhat resembling boiled tapioca, with a little thin mucus. The little pellets are very characteristic and consist of a denser mucus, frequently arranged in a spiral form, the asthma spirals. They contain the Charcot-Leyden crystals, small and octahedral, colorless or faintly yellowish when massed. Degenerated epithelial cells are found and leucocytes mostly eosinophiles.

Besides the typical form of asthmatic paroxysm, another is very common where there is little or no spasm of the diaphragm or consequent distension of chest; principally dyspnea, both expiratory and inspiratory, with rales and wheezing, the so-called "nervous asthma." This is called by some a different form of disease, but the difference seems only one of degree. Other attacks begin with marked sneezing and coryza with lacrymation running into the more typical attack. This form is quite characteristic of hay asthma.

As regards the pathological condition that causes these various symptoms, there has been, as yet, no very definite proof. All seem agreed that it is a neurosis, but calling a disease a neurosis does not explain it. Various theories have been

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advanced to account for it, the most generally accepted being that the cause is a spasm of the circular unstriped muscles in the walls of the bronchioles.

Brodie and Dixon have demonstrated that stimulation of the vagus, which is the only motor nerve supplying the bronchi, will cause the signs and symptoms of spasmodic asthma. The same stimulation has been shown by Auer and Lewis to be caused by the influence of proteid poisons when the vagi were both cut and the animal kept alive by artificial respiration. In either case the injections of atropin served to arrest the spasm.

Vasomotor turgescence of the membrane of the bronchi is considered by others to be the real cause, and many observations point strongly that way. There seems to be no reason that vasomotor congestion and spasm should not co-exist. No one who has studied the spasmodic laryngeal symptoms that accompany even mild throat irritation would be surprised at this. The frequent co-existence of vasomotor rhinitis and hay asthma is suggestive. Certain it is, that there practically always results a catarrhal discharge during the attack, the peculiar spirals are composed of dense mucus and are usually claimed not to show inflammatory products, except in case of chronic bronchitis.

Many of the later writers on this much discussed topic claim that asthma is the result of an anaphylactic attack. There is much force in their contention. Sensitization to various proteid substances, both of animal and vegetable origin, has been shown by skin inoculation, and the exhibition of such substances produces its irritant effect through some part of the respiratory tract, principally the nose. Retention or decomposition of mucous secretions in the accessory cells or behind hypertrophic turbinates, inhalation of dust or animal odors, or absorption from alveolar abscess are the commonest methods. This conception of asthma does not, in the least, invalidate the preceding theories. In fact, it distinctly tends to explain them. One of the most marked symptoms of anaphylactic shock is respiratory spasm. The classic experiments of Auer and Lewis simply show that in guinea pigs the effect of anaphylactic shock is death from spasm of the bronchial muscles. They distinctly state that a slight submucous edema is found in the bronchioles. They admit that the symptoms in dogs are quite different from those in guinea pigs. Vasomotor disturbances are constantly met with in the human being, urticaria being usually looked upon as characteristic of such attacks. The existence of a marked proportion of eosinophiles in both asthma and urticaria is suggestive.

The treatment of such a condition as asthma, as of any other neurosis, will vary according to the individual practitioner. Almost every substance in the materia medica has been used and vaunted, both by profession and laity. Out of the medley a few are of considerable utility. To abort an attack probably hypodermic injections of morphin or atropin, or both, have proved the most useful. Heroin may be used instead of morphin. The inhalation of chloroform is good but dangerous. A-perle of amyl nitrite or valerianate inhaled may also succeed. Sedative and antipasmodic remedies are much employed and should be pushed to the point of physiological relaxation for their best effect. The commonest of these are belladonna, stramonium, tobacco, lobelia or quebracho. The fumes from these drugs with potassium nitrate can be inhaled with some benefit. The iodides seem to have the most reputation between attacks.

All medicinal substances, however, soon prove disappointing. Care in the matter of overeating, and scientific regulation of diet, with occasional free purgation, have in the practice of thoughtful men, done much more. Avoidance of dust, fresh air, change of climate and change of work all have accomplished much.

When a few years ago the cure of a case of asthma by removing polypi was reported, these patients came more and more to be sent to the rhinologist, and every conceivable operation or treatment has been tried with varying, but usually good, results. In fact, it would seem that even by the most tentative and experimental methods the nasal specialist cures or alleviates more cases of this disorder than all others combined. The removal of polypi and the drainage of ethmoid and other sinuses seem to have been the most successful methods, though operations on the septum have been of very great effect. Much attention also has been called to the writings of Francis, who claims the cure or radical relief of the vast majority of 1,066 cases by cautery of the upper anterior septum. He secures the best results

when the nose seems the most normal, and also by the very lightest cautery. Others have not been so successful and hint that suggestion may have been the real cause of his reported successes. Certainly the Francis cauteries have not prevented the necessity for more severe operating when pathological conditions were found.

The prognosis in asthma has been considered always favorable so far as life in concerned, but poor for prevention of attacks. We believe that this also can easily be changed to favorable.

The articles written on this disease are multitudinous and only one excuse can be offered by the essayist for adding ever so slightly to them. His success in the treatment of this disease has been greater than the majority claim. Empirically he has deduced a clinical theory that seems to correlate the more generally approved ideas of others and, on reading the more recent articles during the preparation of this paper, finds very substantial support from others whose minds have worked along similar channels.

Some twenty years ago the writer, being convinced through personal experience of the importance of bowel toxemia in the causation of various neuroses, was impressed by the similarity of the symptoms to those found in his hay fever patients. The same marked similarity was observed in the cases of asthma, the prodromal symptoms in particular, being identical with those of toxemic troubles. Treatment along that line served more and more to fix the idea until it became a working clinical hypothesis that the underlying neurosis of the asthmatic, like that of the hay fever patient, was largely the result of absorption from the bowel of poisons derived from the putrefaction of proteid waste. There has been, in the vast majority of cases, some nasal irritation which seemed to determine the location of the symptoms in the respiratory tract. When this nasal condition was relieved by operation or otherwise, and, along with it, the patient placed on a suitable diet with proper eliminative treatment, the relief or cure was perfectly satisfactory.

Recurrences came, it is true, but only in a few cases where the patient would not allow supplementary nasal work, or refused to submit further to dietetic rules, was there any difficulty in stopping these. It must be understood, of course, that he is now referring to true asthma, not to the dyspnea from laryngeal paralysis, obstruction from bronchitis or lung trouble, nor that of kidney or heart disease.

Granted that the reasoning has been inductive, there are many facts to point strongly toward this causation, and observations of perhaps the greater number of the more recent writers, at least those in the English language, bear markedly in this direction.

Asthmatics belong to a class of neurotics in which a strong heredity exists. They are found more commonly in the most nervous races, as for instance the Jews. Marked idiosyncracies regarding food and drugs are found among them. Doctors are driven to distraction by unexpected action of their medicines. Parenthetically, one should remember the similarity between idiosyncracy and anaphylaxis.

Eric Billingham Smith finds eczema a common precursor to asthma in children, and urticaria far the commonest eruption. All these characteristics are found among the victims of bowel toxemia. He found the best results from regulation of the bowels in chronic constipation and a course of rhubarb and soda. We would call attention particularly to the soda.

Most of the later writers consider asthma as a form of anaphylaxis or protein sensitization. Bernard Oettinger calls attention to a report in the *Journal A. M. A.* in 1908, that three fatal cases of anaphylactic attack from first injection of antitoxin had been in asthmatics.

Meltzer says, "An asthmatic is a person who is sensitized to a definite substance and an attack is set up whenever this substance enters the blood in any way."

Justus Matthews finds in a study of 200 cases at the Mayo clinic, that sixteen had overshadowing symptoms of heart, lung or kidney disease, 184 had the principal lesions in the nose, 58 polypi, 52 polypoid degeneration of middle turbinate, 63 suppuration in one or both antra, 13 children with tonsil and adenoid disease. He claims that sensitization may come from absorption of proteid substances, from retained and putrefying discharges in sinuses or pockets.

Goodale and Talbot both agree, after close study of their individual private cases, that asthma may be divided into, 1, inhalation anaphylaxis, whether seasonal, from pollen, etc., or perennial from dust and animal exhalation;

2, ingestion anaphylaxis: milk, eggs, shellfish, etc.; 3, autolysis of bacterial proteids from retained secretion.

R. H. Babcock claims sensitization from ethmoids, alveolar abscess or bowels.

W. J. Abbott regards asthma as an anaphylactic attack, largely of nasal origin, and considers ethmoiditis as the commonest and probably a necessary condition in its etiology, and that intestinal conditions help greatly to aggravate the condition.

Burdick and Abel claim the asthma paroxysm as an anaphylactic attack, due to protein sensitization, mostly from the bowel. They say a neurotoxin is found in every case so far examined, that skatol is quite prevalent and a high indicanuria universal. Most of the cases tested responded to egg, some to shell-fish as well as other albuminous foods, and some doubtless were sensitized to protein of pus or other confined secretion.

Eustis examined 178 cases from the dietetic standpoint and found only three in which there was not a high indicanuria, either during or after the attack, and only ten where eliminative treatment and diet for relief of bowel toxemia did not give satisfactory result. He calls attention to the discovery made by Barger and Dale while attempting to isolate an active principle of ergot. They found a base which they identified as betaimidazolylethylamin, which when injected into guinea pigs, cats and rabbits stimulated contraction of the unstriped muscle, not only of the uterus, but the bronchioles. Ackermann has described a similar base derived from the putrefaction of histidin, an amino acid formed in the peptolytic digestion of proteids. Eustis experimented with this base and found it caused not only an experimental asthma paroxysm but also urticaria. He claims to have proved that the Charcot-Leyden crystals found in the sputum of asthma are amins similar to cadaverin and putrescin, resulting from putrefaction of proteids. He suggests that the protein sensitization, which term he prefers to anaphylaxis, comes from absorption of some substance similar to betaimidazolylethylamin, if not identical, either from bowels, sinus retention of mucous secretion or alveolar abscess; that this form of poisoning can be overcome by nature's powers of resistance when in health; that he has experimentally shown that the poison may be detoxicated in his experiments on the liver of the turkey buzzard.

It is not necessary to quote farther, except to say that all who have studied the skin reactions of asthmatic patients find that most respond to more than one proteid substance. This agrees with the clinical observations of the writer. Several of his patients showed marked idiosyncracies against different drugs. In fact, in the cases he individually treated during the attack, he had to learn by experiment their personal peculiarities before he found the agent that gave the required result. Two got relief of the spasm by morphia, but instead of causing drowsiness it produced wakefulness and exhilaration.

One very interesting case showed twice an extreme reaction to the application of capsicum plaster used by a dentist. The body, from the waist up, as well as face and head, resembled that in a severe scarlet fever with very marked swelling and burning, eyes swollen shut, rings cutting into fingers, etc. These attacks came on suddenly and subsided quickly under alkaline purgatives. This case was a confirmed asthmatic, an invalid for twenty years with paroxysms two or three nights a week, according to her story. A cautery of the turgescent septum was done with no thought except to improve nasal respiration and she had no further attacks when last seen, twelve years later, except slight trouble once for two weeks during hay fever. This, by the way, is our only case that seemed to uphold Francis' claims. This patient, having been an invalid for so many years, was very willing to make the dietetic changes prescribed, and to her co-operation in this regard, we must ascribe the brilliant recovery.

In this connection it must be said, that in a few cases, and they were but few, where the nose appeared essentially normal, the symptoms were very much of an hysterical nature. The great majority of our cases showed some decided nasal trouble, and while markedly neurotic, would not be classed as hysterical.

By far the greatest proportion of the author's cases were ethmoidal, the worst of them showing a typical chronic ethmoiditis with polypoid degeneration of the middle turbinate. One of twenty years duration showed only a middle turbinate pressing upon septum, but on operation the ethmoid cells were found full of polypi though

the removed turbinate showed no apparent degeneration. In some few cases the only treatment required was the removal of polypi from under the turbinate, thus allowing drainage. This was true only of four or five cases. In many more ethmoid operating was necessary and in the majority of these a recurrence of polyp growth brought on return of asthmatic symptoms. In all of these no difficulty was found in checking the paroxysms by cleaning out the developing polypi. While the essayist regards these as cases sensitized by sinus retention, he found in every case examined, a very high acidemia with marked indicanuria. For a number of years he has advised thorough laboratory urinalyses in such cases.

In two very pitiful asthmatic invalids where there was pansinuitis, only slight relief was obtained, as the patients discontinued treatment before all the sinuses were properly drained.

More easily treated, so far as the nose is concerned, has been a smaller group of patients where the irritation consisted of deflection of septum or hypertrophied turbinates causing pressure. Prompt stopping of the asthmatic attacks came after healing but these cases were, like the first class with the normal noses, more distinctly toxemic from bowel absorption and more difficult to control. After operation two had slight attacks when suffering from occasional "colds" but refused dietetic care as the "treatment was worse than the disease," preferring palliative treatment until recovery from the catarrhal attack.

It has seemed reasonable to the writer to consider in such cases the underlying toxemia as the real disease, and the nasal irregularities merely as incidents which served to locate the anaphylactic explosion in the respiratory tract rather than elsewhere as an urticaria, for instance.

In general, the writer's experience in treating such asthmatics, as have come to him, has been extremely satisfactory. The same can be said of hay fever. Probably these latter cases may explain in a measure why he has met this unusual success. For years he has taught his students that there has been but one serious obstacle to success in the cure of this disease, namely money. His wealthy patients found it very much more agreeable to take a pleasant trip north during the hay fever season than to regulate diet strictly, and perhaps use high bowel flushings. The patients who could not afford to run away, stayed at home and followed directions with most gratifying results. It is not so easy to run away from asthma, but we all know how the laity has ever looked to find the pot of gold at the end of the rainbow by a "change of climate." Most of our individual patients, however, have been very faithful in following treatment. Hence, the good results reported.

It is practically only from a study of these individual cases that the writer makes his deductions. Patients referred to him by others, seen only during care of the nose and clinical cases, have served to confirm his conviction, but it is obvious that, in such, a greater proportion of failures might come without the knowledge of the operator.

In this connection, too, he wishes to state that there is no *a priori* reason that chronic bronchial retention should not act in the same way as sinus or other nasal retention of secretions, but in his practice he has not seen such.

The treatment referred to is simple. Correct all manifest nasal obstructions and drain all cases of sinusitis. Watch for recurrence of this inflammation and use appropriate treatment early. Reserve cautery for the touching up of the rather unusual hyperesthetic spots. Hypertrophies and intumescences are best treated by the knife.

Diet is regulated by the findings in thorough urinalysis. This has meant in practically every case, cutting down to the vanishing point the animal proteids, giving free amount of water and mild alkaline medicines with occasional mercurial and saline catharsis. High colonic flushings with alkaline solutions are also prescribed to hurry the treatment and always when indol and skatol are found. All forms of vegetables and fruits have been allowed but overeating has been strictly prevented if possible. Palliative drugs have been used when required at time of attack.

The writer regrets that he is unable to give detailed statistics of his cases, but full histories have only been kept for the past few years and embrace only a small proportion of the patients whom he cared for during their entire trouble. He can not quote great numbers of cases as some have. Such reports must come of necessity from institutional practice. The deductions are made from a not inconsiderable practice of twenty-

six years, during over twenty of which he had the additional advantage of conducting special clinics.

He would sum up his conclusions as follows:

1. Asthmatic paroxysms are of the nature of anaphylactic attacks.

2. The underlying cause is sensitization of the system by absorption of proteid toxins from bowels or retained secretions in nose or elsewhere.

3. The exciting cause is the inhalation or ingestion of this protein poison when the system is so sensitized.

4. Nasal irregularities may tend to focus a toxemic attack in the respiratory tract which might otherwise show in other manner.

5. Thorough treatment of nasal disease or abnormality, with scientific attention to bowel toxemia, cures or prevents the great majority of cases.

BIBLIOGRAPHY.

McDonald, G.: British Med. Jour., Nov. 5, 1904.
Auer and Lewis: Jour. Exp. Med., 1910, XII.
Osler's Modern Medicine, III, 710.
Berkart, J. B.: Pathology and Treatment of So-called Nervous Asthma.
Meltzer: Jour. A. M. A., 1910, LV, 1002.
Matthews, Justus: Jour. A. M. A., 1913, LIX, 1107.
Oettinger, B.: Med. Record, Nov. 9, 1912.
Francis, A.: British Med. Jour., Nov. 26, 1910.
Grant, Dundas: Practitioner, June, 1913.
Brodie and Dixon: Trans. Path. Soc., London, LIV, 38.
Abbott, W. J.: Ann. Otol., Laryn. and Rhi., 1914, XXIII, 83.
Babcock, R. H.: Jour. A. M. A., 1915, LXIV, 2115.
Davies, R. C.: Tr. Am. Therap. Soc., N. Y., 1915, XVI, 53.
Klenk, C. L.: Interstate Med. Jour., St. Louis, 1915, XXII, 1209.
Burdick and Abel: Rational Medicine, p. 175.
Jackson, D. E.: Jour. Lab. and Clin. Med., St. Louis, 1915, 126.
Rogers, Sir L.: Practitioner, Lond., 1916, XCVI, 573.
Eubank, W. W.: Med. Jour., Australia, 1916, II, 53.
Hughes, W. K.: Med. Jour., Australia, 1916, II.
Eustis, A.: South. Med. Jour., Nashville, 1916, IX, 387.
Talbot, F. B., Boston Med. and Surg. Jour., 1916, CLXXV, 191.
Rehn, M. H.: Arch. Int. Med., Chicago, 1916, XVII, 445.
Goodale, J. F.: Trans. Am. Laryn. As., May, 1916.

GOITER, THE DIAGNOSIS AND TREATMENT

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Diagnosis. The diagnosis of hyperthyroidism is difficult at times, especially when there is no exophthalmos or decided enlargement of the thyroid. When these symptoms are absent, the heart and nervous system are often treated without recognizing the underlying cause of the disease. The symptoms first noticed may be slight insomnia, nervousness, and accelerated heart action, which are increased on exertion. Exophthalmos is present in only a small per cent of the cases of moderate hyperthyroidism and is not demonstrable in every case of severe toxic goiter. When enlargement of the thyroid gland occurs at puberty, menstruation, or pregnancy, it may be physiologic and temporary; if it follows severe or prolonged emotional strain, it is more likely to be pathologic. In eighty per cent of the exophthalmic patients coming under my observation the onset was traced to an accident, sudden fright, parturition, grief, worry, climacteric or infectious diseases. Simple goiter may change into the toxic type at any time. Ninety-four per cent of all goiters occur in women.

Clinical Observations. In reviewing the case records of one hundred and twenty-five patients who live in western states, where the per cent of the population affected by goiter is very low, I observed that the onset of the disease is later in life, and the toxic symptoms develop more slowly, than is the case in those patients coming from sections where the disease is more prevalent. In this group of one hundred and twenty-five patients, forty per cent of the exophthalmics noticed the goiter eight years before examination, at the average age of thirty-four, and the symptoms developed at the average age of forty. Fifty per cent gave a history of acute onset two years before coming under observation, at the average age of twenty-nine. Five per cent gave a history of acute exophthalmic symptoms, several years before, when the temperature ranged from 102-4° F. daily, for two to four months. The symptoms suddenly ceased and the goiter became atoxic. Of the patients who were toxic, but had not reached the exopthalmic stage, it was noted that sixty per cent observed that they developed more marked symptoms of intoxication as the goiter became more chronic. Eighteen per cent of the toxic patients, after an average period of five years, suddenly became exopthalmic. Twenty-two per cent of the nontoxic patients have shown no tendency to become toxic. None of these had had goiter for more than three years; the average duration was seventeen months and the goiter appeared at the average age of thirty-two.

If the goiter is of the severe rapidly progressive type, the grst acute exacerbation of symptoms may not occur for four to six months, when the patient is forced to her bed for perhaps a month; as the symptoms subside she is able to be up, but can not do any sort of work. The disease follows a chronic course with the involve-

ment of other organs in addition to the heart and nervous system.

Influence of Other Lesions on the Symptoms of Goiter. The association of thyroid and uterine disease is often observed, and has been variously estimated at fifteen to twenty-five per cent of all cases. In this group of one hundred and twenty-five patients, ovarian pain was noted in thirteen per cent of the exophthalmics and in nineteen per cent of the non-exophthalmics; dysmenorrhea occurred in thirty-eight per cent of the non-exophthalmic patients. The amount of flow and the regularity of menstruation varied with the severity of the toxic symptoms, menstruation usually being absent in the most advanced cases. The favorable influence exerted by ovarian substance in certain types of hyperthyroidism indicates the close relationship existing between the thyroid and ovary.

The predominance of neurasthenic symptoms with low blood pressure and perhaps bronzing of the skin, point strongly to deficiency of the suprarenals.

Treatment. Too frequently the physician advises the patient with beginning hyperthyroidism, that the goiter will disappear of its own accord. It is true that sometimes physiologic goiter will disappear if left alone; however, if it does not disappear in a few weeks, or if it recurs after the removal of the exciting cause, the probability of its permanent subsidence without treatment is remote. It is a mistake to neglect the small beginning goiter, because it is at this early stage that the disease responds most easily to treatment.

Usually the hyperthyroid patient is not regarded as a sick person. Because her symptoms may not be severe enough to compel her to stay in bed, the physician is liable to be lax in insisting on close medical supervision. Surgeons and internists agree that any procedure for the treatment of hyperthyroidism must be based upon a period of rest with medical, dietetic, and hygienic measures suited to the needs of the individual case. The patient will usually do best away from home, removed entirely from surroundings suggesting mental and physical exertion. Inquiry will often disclose some particular factor of work or worry that has contributed to the symptoms or perhaps caused the disease, and which should be corrected as far as possible. Sympathetic friends and relatives should be excluded, thus giving the patient an opportunity for repose as complete as can be in a cheerful atmosphere.

Quinin and Urea Injections. About four years ago I observed the effect of a concentrated solution of quinin and urea which I injected into an angioma of the tongue, that had been repeatedly cauterized with carbon dioxid snow without reducing its size or vascularity. Injections of a concentrated solution caused the tumor to disappear completely; the tongue assumed its normal size and color and there has been no return of the condition since. Babcock has recently reported several of these cases successfully treated by this method.

Shortly after treating the angioma, I used the quinin and urea injection in a severe case of toxic exophthalmic goiter. The patient was too ill to stand even the slight operation involved in ligating the superior thyroid arteries; the improvement following the injection was more decided than I have ever seen following ligation.

The use of injections of iodine, carbolic acid, alcohol, arsenic, iodoform and chronic acid are to be condemned because of their poisonous and corrosive properties and the liability of producing a thrombus if accidentally injected into the blood stream.

In selected cases I believe hyperthyroidism can be relieved by means of concentrated solutions of quinin and urea injected into the thyroid. Preliminary injections into the gland of a few minims of sterile salt solution, followed by injections of sterile water, are recommended to raise the patient's threshold to stimuli, thereby lessening the danger of acute hyperthyroidism which might follow the slight pain of the first quinin and urea injections. As soon as no hyperthyroidal reaction follows the water injections, their usefulness is at an end. The necessity of preventing the slight pain from any injection, by means of local anesthesia, can not be too strongly emphasized.

The injection is not suited to all types of goiter and unless used discriminately, it will be disappointing if it is not disastrous. The procedure is one that is surrounded by certain dangers, immediate and remote. One inexperienced is liable to puncture the trachea or one of the large blood vessels, or to make the injection into the soft tissues of the neck. Injections that are too extensive will produce the same symptoms of myxe-

dema that follows the removal of too much thyroid by operation. There is always the danger of provoking an acute attack of hyperthyroidism, The toxic patient should be watched carefully and at the first sign of an impending exacerbation treatment should be stopped; a hypodermic of morphin and atropin given, ice bags applied over the thyroid and heart and the room darkened.

CONCLUSIONS

1. The importance of early diagnosis and treatment of goiter are to be emphasized if the best results are to be secured.

2. Goiter occurs at an earlier stage, and the symptoms of intoxication are more severe in goiter districts, than in localities in the western states, where the disease affects only a small per cent of the population. In sections where it is infrequent, the exophthalmic type seems to develop more often.

3. In a group of one hundred and twenty-five cases, I believed that the quinin and urea injections were not indicated in twenty-five of the number; the method being used only in the one hundred cases with the following results: The symptoms were relieved in eighty-five per cent of the exophthalmic, and in eighty-four per cent of the toxic non-exophthalmic patients. Fifteen per cent of the exophthalmic patients were improved and ten per cent of the non-exophthalmics were benefited. In eighty per cent of the exophthalmic patients the goiter entirely disappeared within an average period of five months; in fifteen per cent the tumor was reduced in size and in five per cent there was no change. The tumor disappeared in seventy-five per cent of the non-exophthalmic patients; it was reduced in twelve per cent, and in thirteen per cent there was no change. These patients have been under observation for two to four years and there has been no recurrence of goiter or symptoms in any patient who was once cured.

4. The number of patients cured is highest in the group of those who came for treatment early in the disease; the benefit received by those who came later, being in proportion to the degree of damage done the circulatory and nervous systems. If the best results are to be secured, hyperthyroidal patients must have at least a year of mental and physical rest after treatment.

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THE INDICATIONS FOR OPERATION IN ACUTE MASTOID DISEASE.*

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To obviate misinterpretation of the scope of this paper I wish to define the field I make an effort to cover.

No effort will be made—

1. To advise any operative technic.

2. To discuss the diagnosis and indications of the complications of acute mastoiditis; especially does this apply to the intracranial complications.

Rather, an effort will be made to assist in an intelligent interpretation of the various symptoms and signs (from the standpoint of operative interference) of acute mastoiditis.

In the title the word operation is intended to cover only attack upon the mastoid antrum and cells, and refers in no way to paracentesis membrana tympani, as no one would consider mastoidectomy unless paracentesis had been done, unless the case showed symptoms which would point to the necessity of immediate mastoid operation.

Although the consideration of treatment in a paper on indications for operation may seem irrelevant, it seems best that I first outline in a very brief way the important principles of treatment which should be carried out (unless the case be one in extremis) before mastoidectomy is seriously considered.

1. The patient should be put at absolute rest, preferably in bed.

2. Diet restricted.

3. Thorough catharsis secured.

4. The membrana tympani should be thoroughly incised to get the freest possible drainage from the tympanic vault, and if it becomes blocked drainage should be re-established without delay (repeated incisions being at times necessary). It is my opinion that this should (where practicable) be done under a general anesthetic, preferably nitrous oxide.

No packing of any kind should be inserted into the external auditory canal as it may impede drainage; however a mass of cotton wool may be loosely placed in the concha to absorb the pus.

This is the most important single element in

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the nonoperative treatment of mastoiditis, and should be given the most careful attention, remembering that probably no case has been well handled unless the membrana tympani has been opened.

5. The ear should be thoroughly irrigated frequently (every hour or two) with a solution of boric, lysol, chinosal or some other mild antiseptic, being certain to instruct with great care the person in charge of the patient that the irrigating can or bag be elevated not to exceed a foot above the head (to obviate extreme pressure).

A solution of the type of 10 per cent phenol in glycerine in my opinion has very little virtue, however it is generally accepted as of use so one may as well prescribe it, instructing that it be warmed and dropped in the ear following the flush.

6. Early in the process before engorgement becomes well established the application of cold (ice bag) seems to be of value, however it is my opinion (and generally accepted) that after the inflammatory process becomes well established cold may be positively detrimental.

Heat now (after establishment of inflammation) becomes of value and may be used in the form a hot water bottle, hot bag of salt or hops, or an electric pad; however moist heat in the form of a poultice should be tabooed.

In using heat care should be exercised to see that the soft tissue is not burned because if it is one may be greatly confused in arriving at a correct conclusion regarding soft tissue inflammation as well as the differentiation between soft tissue and bone tenderness.

The use of leeches, scarification, blistering and the like is in my opinion of doubtful value as a therapeutic measure, and they may make the case difficult to interpret very much the same as the use of excessive heat.

7. Internally some of the salicylic acid derivatives are of value.

The use of opium derivatives is to be tabooed because they may mask the symptoms of very important complications, also their continued use may put the patient in an unsatisfactory condition for anesthesia because of the nervous irritability they may produce.

In considering the advisability of operation in acute mastoiditis one had better err on the side of radicalism because the operation may in competent hands be considered a relatively simple procedure, while failure to operate may be fraught with the most serious consequences, as Todd says he has never regretted doing a simple mastoid but that he always has a haunting fear when a patient who has had an involvement of the mastoid recovers without operation.

In my discussion I am presupposing that the diagnosis of mastoiditis is correct, and has been positively differentiated from furunculosis of the external auditory meatus, and acute lymphangitis of the neck.

To expedite matters I will discuss the chief clinical points under nine subheads.

1. Previous Local and General Conditions. The first local condition—The advent of an acute mastoid involvement in a patient with an old purulent otorrhea is probably one of the most positive indications for immediate mastoid operation.

Another local condition—Nearly all mastoid disease is preceded by involvement of the middle ear proper, so one will in nearly every case get a history and find on examination involvement of the tympanum; this need not however be true as anatomically there is such a thing as a closed mastoid (i. e. no connection between antrum and middle ear or so small that the congestion of the mucosa closes it), and nearly every aural surgeon has opened mastoids for patients who have practically normal (at least no acute involvement) drum membranes.

Another local—Given a patient who has had an acute otitis media which has not cleared up under a good course of local and general treatment, I think we have a patient for operation. Operation in this kind of a case is a two-edged sword inasmuch as it will prevent the condition from becoming chronic when a much more extensive and serious operation might have to be performed, and also save the patient's life as well as preserve the integrity of his organ of hearing.

The first general condition—As is very generally recognized early operation is indicated if the condition is a concomitant or a sequela of one of the acute exanthematous diseases; particularly is this true with scarlet fever and measles.

Another general condition—Where we have good cause to think that the infection may be

endogenous, little time should be wasted on any other line of treatment, especially is this true if there be little involvement of the middle ear proper. This condition is especially apt (I do not wish to be understood as saying often) to develop in typhoid or some other septicemia.

2. Roentgen Examination. The value of x-ray examination in acute mastoiditis I do not consider nearly as important as in the chronic condition; however by comparison of the two mastoids much information may at times be gained, at least if the antrum and cells are full of pus it can be seen. Usually it is too early in the disease to see any necrosis; also anatomical variations from the normal may be seen.

It is my opinion that from a purely diagnostic point of view especially regarding arriving at a conclusion about the necessity of operation that the x-ray holds a very small place in acute mastoiditis.

3. Blood Examination. A—Blood count. A leucocytosis is probably a constant concomitant of acute mastoiditis, if the patient has any resistance at all; however, a leucocytosis in itself is of no importance to us in this connection.

It is generally conceded that in an acute otitis media with a considerable leucocytosis (18,000-30,000) with a high percentage of polyneuclears that it is probable that the blood stream (via sinus) is being invaded and calls for immediate operation.

B—Blood cultures. The subject of bacteremia should probably receive no attention here as it is hardly pertinent.

Bacteremia today is not considered so infrequent as it was a few years ago, probably because of improved technic. I think there would be no disagreement with me on the point that if bacteremia is found to exist and all other points of possible infection have been excluded we would have a very positive indication for operation as it would probably foretell a sinus thrombosis.

4. Time Element. This is hardly a satisfactory basis on which to arrive at a conclusion regarding operation, because as we are all well aware more damage may be done in an hour in some cases than in days in others; it probably, however, gives us a fair working basis.

Given a case of uncomplicated acute mastoiditis in which there has been thorough general and local treatment for twenty-four hours, if there is no abatement in the symptoms but no increase in severity one should resatisfy himself that drainage cannot be improved and keep the patient under observation. On the contrary if the symptoms have continued to increase in severity or particularly something points to an impending complication an immediate operation should be done.

How long one should wait after the establishment of an acute mastoid before advising operation will not be generally agreed upon. The answers from a number of otologists to a questionnaire sent out by Large varied (where direct answer was made) from two to six weeks. Pierce says: "In the ordinary case it requires three weeks for decalcification to occur in the osseous structure of the pneumatic cells; up to this time (and possibly after) recovery is possible." He says also that if an abundant discharge is present at this time the indications for operation are at hand. It seems to me that this time limit is sufficiently conservative, but if the patient is watched carefully the danger is very slight. However, one should always be ready to operate instanter if the patient becomes worse.

One more element must be mentioned here notwithstanding that it was called to your attention above and that is the case of acute otitis media where the acute symptoms have abated but the discharge continues, under good treatment; here the mastoid should be opened to preserve the integrity of the ear as well as possibly life itself.

5. Pain and Tenderness. Pain would be a rather poor guide to advising operation in most cases, but given a case with perfectly free drainage through the external auditory meatus with no abatement of pain the mastoid should be opened.

Also, if after the discharge stops pain continues operation is indicated.

Extensive tenderness of the mastoid which is not relieved by drainage, or continues after otorrhea ceases is an indication.

One must put very little confidence in tenderness as a guide to the severity of mastoid involvement (this also applies to pain, but not quite so much) as it may be very marked where the cortex is thin even though the involvement be very slight, while with a sclerosed mastoid or with a

very thick cortex even with extensive involvement there may be little or no tenderness.

6. Deafness. This is a factor which is given very little attention, however Charles J. Heath of London lays much stress upon it. He argues that the integrity of the ear as the organ of hearing is all important and that when the hearing becomes markedly involved there is great danger that it will not clear up unless the infection is taken care of at once, also he considers simple opening of the mastoid so simple a procedure and recovery is so rapid that he lays much stress upon this point as calling for operation.

The above view is not acceptable to most American otologists.

7. Examination of the Ear and Mastoid Region. On inspection of the drum membrane if one is satisfied that there is very free drainage (which cannot be improved) with no abatement or an increase in signs and symptoms the operation should be done.

Bulging or sagging of the posterior superior wall of the external auditory meatus in close proximity to the membrana tympani, which is due to involvement of the cells below and anterior to the mastoid antrum (cells of Kirchner) is universally conceded to demonstrate the necessity of opening the mastoid.

Redness and swelling over the mastoid region, is a rather frequent finding, especially is this true in children, the presence of either in an adult probably calls for an operation; in a child it may subside after drainage but should cause one to be on his guard. Once a mastoid in an adult has been sufficiently involved to cause these symptoms I think it is very doubtful if complete resolution can ever take place, and if this be true and we are not ultraconservative we will probably advise operation.

The development of a subperiosteal abscess which is rather frequent in children especially in infants should bespeak the need of opening the mastoid, and in making this point I am well aware that occasionally a big subperiosteal abscess will drain out through the middle ear and clear up but the danger is too great to take a chance. Kindly pardon digression from the exact subject in hand long enough for me to say that I do not consider a simple incision (Wilde's) down to the bone as sufficient in this type of case.

Extension of infection (pus) into the glands of the neck or drainage through the tip of the mastoid under the sternomastoid muscle (Bezold abscess) demands operation.

8. Aural Discharge. It must be remembered as I have indicated before that we may have all of the symptoms of mastoiditis (and really have it) with no involvement of the middle ear proper, when no discharge will be found. In this case the infection is probably blood borne or else there may have been advent of infection from the tympanum and it caused enough swelling to cut off the connection; in other words, it may have been a closed mastoid in which there was no otorrhea or other involvement of the middle ear; this type of mastoid should be opened when diagnosed.

Sudden stoppage or marked diminution of the drainage with no abatement or possibly increase of symptoms calls for operation. (This was also considered above).

Another exceedingly important factor which must always be kept in mind is the presence of an enormous discharge (practically runs out of the ear); more than can be accounted for as coming from the middle ear and mastoid is in my opinion one of the most positive indications for operation.

If an ear continues to discharge (under good treatment) for many weeks after an acute otitis media, it demonstrates necrosis beyond the sphere of treatment and demands operation.

Bacteriologically we have a very valuable basis for opinion. The presence of streptococci (especially capsulated) should call for the most careful watching as their presence seems to forbode complications and one should be doubly quick to advise operation if the case does not progress in a very kindly way.

9. General Symptoms. In a patient in whom the general prostration seems out of all proportion to the severity of the local disease operation should at least be very seriously considered.

A sudden rise of temperature, especially where drainage cannot be improved, demands operation.

I wish to mention several symptoms which usually bespeak some intracranial complication and demand our most careful attention, destroyed audition, vertigo, nystagmus, facial paralysis, convulsions, severe rigors, or sharp rise or fall of temperature.

In conclusion, I want to impress that the error

in judgment had better be one of commission than of omission because as Large says, "Early opening of the mastoid antrum prevents the case from becoming chronic, so the simple operation prevents the radical."

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INTESTINAL STASIS*

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Intestinal stasis is a perversion of the whole digestive tract, the exact cause of which is not well established. Many theories are advanced as to the order in which this condition is developed. The symptoms are nervous, mental and physical. Many other diseases may follow or be the cause of it. It may exist in connection with ptosis of the stomach and colon, abnormal conditions of the ileocecal valve, obstruction from bands, membranes, kinks or growths. Yet any or all of these conditions may exist without having intestinal stasis.

My opinion, based on a limited experience, has impressed me with certain points in the causation of the trouble and the method of overcoming it. The picture is very striking in extreme cases. All the symptoms stand out so prominently that the physician ought seldom to overlook the condition; the sallow, ashy pallor of the skin, the sunken, listless eyes, the nervous irritability, the flabby muscles, the general weakness, loss of energy, loss of interest, loss of flesh, mental weakness and a multitude of aches and pains give a general down and out appearance. In a case like this where organic disease of the vital organs is eliminated, the picture is complete of intestinal stasis.

It is absurd to say that Lane's kink, Jackson's membrane, or any other physical tricks of the intestines, always cause stasis. Every surgeon who does abdominal surgery has found that every kind of a kink, membrane and twist may exist without these symptoms.

At one of the recent meetings of the Surgical Congress a prominent surgeon of Chicago, spent thirty minutes throwing x-ray pictures on the screen of every conceivable, abnormal, distorted and unusual position and condition of the digestive tract and boasted with apparent satisfaction that none of these cases had intestinal stasis or even had symptoms of ill health. This was purely a negative presentation.

Anyone can show as I have done that intestinal stasis does exist with these abnormal physical conditions in some individuals, but it does not always follow. This brings up the theory of stasis.

From experience, observation and study, I believe that incompetence of the ileocecal valve is the most frequent cause of intestinal stasis. Dr. Kellogg in his operative work for restoring the valve and Dr. Case in his x-ray work before and after, with reports of these cases, give very satisfactory evidence of the truth of the above opinion.

The ileocecal valve is constructed by invagination of the ileum into the cecum and when normal is supposed to be air tight and water tight. The object of this construction is to prevent the reflux of waste material laden with microorganisms or toxins, as the case may be, from the colon to the ileum, where they are more quickly and easily absorbed. How absorption takes the place, and the physical laws governing absorption, and whether the poisons are bacteria or their products, I will not discuss.

I will mention an interesting case which is typical of intestinal stasis and the operation for making the ileocecal valve competent. An unmarried woman about thirty years of age gave a typical history of intestinal stasis with the emaciation, sallow skin, general debility, loss of nervous energy, nervousness, sleeplessness, loss of appetite and constipation. The x-ray showed some ptosis but not extreme. With all these symptoms she was in a miserable condition, as she so expressed it. I did the Kellogg operation for making the valve competent. On examination the contents of the cecum could easily be expressed into the ileum. After completing the operation this could not be done. This patient made an uneventful immediate recovery. In less than three months she regained her flesh and her healthy look and good complexion and was able to do anything she wished. She was apparently well and has remained so.

Prolapse of the stomach and colon in some instances undoubtedly gives rise to all the symptoms of intestinal stasis. As a rule other than surgical methods should be first tried; yet I have, in a few instances, operated previous to treat-

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ment, feeling that time would be wasted if the stomach and colon were not replaced, the prolapse being so extreme. Gastroenterostomy in these extreme cases should never be performed.

I have done the Beyea operation of plicating the lesser omentum or the gastrohepatic and gastrophrenic ligaments; also the Coffee operation which consists of stitching or tucking up the gastrocolic omentum and the greater omentum to the abdominal wall, forming a kind of a hammock to support the stomach. I have also done the Rovsing operation of stitching the stomach to the abdominal wall with three parallel, heavy catgut sutures, bringing the sutures up through the abdominal wall and back through the aponeurosis, tying over the incision beneath the fat. This is a modification which I do instead of using silk and bringing the stitches through the entire abdominal wall, tying on the outside over a protective dressing and removing the stitches in four weeks.

I have also done the combined Coffee and Rovsing operations. The results of these operations are satisfactory if you can keep the patient in bed for a time. Afterwards putting them on a milk diet and give them the postural treatment. This consists of increasing the milk from one quart to four, five or even six quarts a day with no meals to begin with; elevating the foot of the bed a part of the day and placing the patient on the right side with the hips elevated a part of the time. A system of exercises for improving all the muscular tissue should be adopted and continued.

The operations of ileocolostomy, ileosigmoidostomy and colectomy, in my opinion, are still in the experimental stage. The immediate results are very often good, but later a large number relapse, and the second condition is worse than the first.

An explanation of these results is obtained by studying the function of the large and small bowel. It is agreed that the small intestine is the great absorbing part of the digestive tract. The stomach absorbs little, also the colon, particularly the transverse and descending portion. The peristalsis of the small bowel forces the contents into the cecum, the ileocecal valve if normal prevents its return. There is, however, a reverse peristalsis in the colon which holds the contents of the ascending colon in the cecum until the principal part of the liquid is taken up. When the valve is incompetent, as I have previously said, the putrifying contents of the colon are forced back into the ileum, where more rapid absorption takes place and a resultant intestinal toxemia.

Recognizing these physiological features of function, we can readily see that by short circuiting the ileum to the colon or sigmoid or removing the colon, the contents of the small bowel are readily passed on if the tonicity and peristalsis of the small bowel are normal. Absorption does not take place and the patient is better, but after a while the ileum begins to dilate because there is no valve to prevent the return of the contents of the colon into it, the ileum, therefore, becomes a dilated reservoir for the absorption of toxins and bacteria and the patient relapses into the old condition. In my opinion, these operations of short circuiting and resecting the colon will not be a permanent success until some sort of a valve is constructed at the artificial entrance of the ileum into the colon.

A number of years ago, I heard Mr. Lane give some of his first talks on this subject. Since then I have seen him operate many times and have followed up his patients for two or three weeks and have heard him discourse on the marvelous results obtained.

But Mr. Lane makes me think of the exponents of orificial surgery. There is hardly a disease in the whole category of diseases that these men have not cured by operating on the rectum. Their work on the rectum is worth investigating by anyone who has not done so, as they do the work, not alone for the local condition but for the cure of general diseases. I have seen some remarkable results from this rectal work.

So with Mr. Lane and his operations on the colon; insanity, arthritis, goiter and consumption are all cured by Mr. Lane with his colon surgery. These men are great pioneers in their line, their enthusiasm carries them over difficult places and partly obscures their vision of the end results. They are great workers blazing the way for the rest of us, but followers must exercise judgment in attempting to follow their path.

I do not doubt that some of the most intracable diseases are benefited and a few cured upon the theory of the bacterial origin of these diseases, but to say that all cases of goiter and

(Continued on Page 366)

ILLINOIS MEDICAL JOURNAL

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State society will pay no bills for legal services except those contracted by the committee. Notify the Chairman at once. Don't employ attorneys.

NOVEMBER, 1917

Editorials

CONSERVATION OF SURGICAL SUPPLIES

This is a time of conservation in nearly all material necessary to human welfare. We have seen a great deal written concerning the conservation of wheat, meat, sugar and other necessary commodities, but little concerning the conservation of surgical supplies.

The United States furnishes a large portion of the world's cotton during normal times. The demand for absorbent cotton and gauze will be enormous for the next few years. The extra demand for other cotton goods will be much larger. The use of bandage material, absorbent cotton and gauze will be called for in large quantities. Such goods may be kept indefinitely. For many years the cost of these materials has been so low that it has led to extravagance in their use. There is scarcely a physician who does not like to be generous with his dressings. A very large per cent. of dressings is destroyed after being used once—very much of which may be used again.

Catgut is used extravagantly in nearly every hospital. Alcohol is also used in a wasteful manner in many institutions. Ether is too frequently selected where local anesthesia could be used. It is probably safe to say that more iodine is wasted than is actually used.

All of these commodities will be needed at home, and the demand by the allied armies will be great. This means that we should begin conservation before the supply is exhausted. It is surprising how little gauze, catgut, iodine, etc., it is necessary to use if those using them are careful, and it is the duty of everyone at this time to save, to be economical with those things which may be needed by our armies.

THE BANQUET TO DOCTOR BILLINGS.

The Physicians' Club of Chicago surpassed itself in its testimonial banquet to Dr. Frank Billings at the Auditorium on the evening of November 1. Always sure of a capacity audience when he has a message for the medical profession of the State or Nation, his return from Russia as head of the American Red Cross Mission was an occasion which appealed to his friends and admirers from near and far. The great resources of the Auditorium were fully taxed to accommodate the throng of seven hundred and seventy-five, including the wives of many physicians, that poured into the banquet halls.

Dr. A. M. Corwin presided in his usual felicitous form and Dr. A. Augustus O'Neill, as toastmaster, maintained his reputation as "silver tongued" orator.

Governor Lowden gracefully admitted that Dr. Billings has for years laid down the law (medically) to the Governor. On behalf of the Physicians' Club he presented a loving cup to Dr. Billings. He expressed the hope that there will go with the cup "all the blessings that he has earned for Chicago, the country and the world," at the same time declaring the Red Cross Mission to Russia "one of the most notable, successful and far-reaching diplomatic missions in the world."

Dr. Billings' address was reassuring as to the ultimate position of Russia in the war, though he

did not fail to describe the political disturbances that have at times played havoc with the plans of the military leaders. "The real hope of Russia' is in the character of its people. They are orderly, good natured, good hearted, industrious, and the most wonderful technicians the world has ever known. There is less disorder since the early days of the revolution than there is in America today."

The Red Cross supplies taken by the commission were received with tears and were probably the first given to Russia by any of the Allies. Dr. Billings paid tribute to the American representatives in Russia, to Kerensky, the premier, and to the sanitary and medical departments of the Russian army.

Both the Governor and Dr. Billings received ovations when they entered the banquet room, the orchestra playing "Illinois" as the Governor appeared.

Consul-General Antoine Volkoff replied to Dr. Billings, thanking him in the name of Russia. "The government of Russia has always been the friend of the government of America, but now that we know each other the Russian people have become the friends of the American people."

Mr. Marquis Eaton, chairman of the Chicago chapter, American Red Cross, made a brief report of the enormous quantity of supplies being forwarded from his district representing the work of an army of women and millions of dollars in value.

Dr. Bevan, president of the American Medical Association, spoke of Dr. Billings' value to the medical profession of the city, state and world, as an "asset," and nominated him as U. S. Senator.

Dr. William E. Quine added his encomiums and referred wittily to teaching Billings materia medica, fearing that he had forgotten much of his instruction. As a teacher of medical teachers he placed Dr. Billings in a class without equal.

The directors of the Physicians' Club, and especially Dr. Corwin, the chairman, and Dr. V. D. Lespinasse, the secretary, deserve the thanks of the medical profession for conceiving the plan of the banquet and carrying it to a brilliant success in record time.

CLINICAL CONGRESS OF THE AMERICAN COLLEGE OF SURGEONS

The above named title was adopted at the eighth annual session of the Clinical Surgeons of North America, held in Chicago, Oct. 22-26. Resolutions were also adopted against the practice of splitting fees. At the session of Monday evening, Oct. 22, Dr. A. J. Ochsner, chairman committee of arrangements, welcomed the members and complimented Surgeon General Gorgas and Dr. Franklin Martin for their efforts in organizing the medical profession for military service.

Honorable Josephus Daniels, secretary of the navy, thanked the physicians who are enlisting to prevent disease, to bind up the wounds of the military forces and restore them to self-supporting status. Like the officers of the destroyers sent to England, the physician answers the call to service: "We are ready now." He described the venereal peril as deadly and demanded heroic treatment.

Surgeon General W. C. Gorgas, U. S. Army, thanked the association for the great help it had furnished his department and said the medical profession has responded as no other profession or class.

Col. T. H. Goodwin, representing the Director General of the British Army Medical Service, referred to the comradeship of British and American sailors and the great help already given the allies by American physicians and nurses at the front.

Col. Sir Berkeley Moynihan, whose ancestors for ten generations have been in the service of the British government, said that one-third of all the medical men in the United Kingdom have already enlisted in the service of the British army. He referred to the military hospital center at Leeds which supplies 6,300 beds where the normal civilian hospitals had only about 500.

He gave credit to both American and British men for discoveries that have practically abolished typhoid fever since the Boer War. And he referred to the study of bilharziosis infestation in Africa which promised an early end to the scourge. Graphically he described the "thin British line" that after days of bombardment withstood the Prussian guard assault in November, 1914. "And that was all that stood at that moment between civilization and disaster to the world."

Surgeon-General W. C. Braisted, U. S. Navy, referred to the work of the National Board of Medical Examiners which will continue during the war to hold more frequent examinations, especially of internes at the camps under the medical department of the army.

Clinics at all the city hospitals occupied the members daily and evening sessions were held in the Gold Room of the Congress Hotel. There was also a special meeting with the Chicago Medical Society.

Tuesday evening, Oct. 23, there was a symposium on "Sanitation and "Sepsis" by Surgeon Generals Gorgas and Braisted and Colonels Munson and Russell. An address on "Gunshot Wounds and Their Treatment" was given by Sir Berkeley Moynihan and discussed by Major Crile.

Wednesday evening, Oct. 24, President John G. Clark gave an address on "The Use of Radium in Surgery." A symposium on military surgery and specialties included:

General Surgery—Major Chas. H. Mayo, Rochester.

Head Surgery—Major W. R. Parker, Detroit.

Brain Surgery—Captain Chas. Bagley, Jr., Baltimore.

Ophthalmic Surgery—Major Jas. Bordley, Jr., Baltimore.

Surgery of the Ear, Nose and Throat—C. W. Richardson, M. D., Washington.

Oral Surgery—Major Vilray P. Blair, St. Louis.

Orthopedic Surgery—Major E. G. Brackett, Boston.

Thursday Evening, October 25

Surgery of the Spinal Cord—C. M. Frazier, M. D., Philadelphia.

Discussed by Allen B. Kanavel, M. D.

Surgery of the Stomach—Wm. J. Mayo, M. D., Rochester, Minn.

Discussed by A. J. Ochsner, M. D., and L. L. McArthur, M. D.

War Surgery of the Lungs and Pleura—Sir Berkeley Moynihan, Leeds.

THE MARYLAND PLAN

A request is made by a member that we publish something relative to the Maryland Plan. The Maryland Plan refers to methods of caring for the practices of those physicians called to army service.

At the annual meeting of the State Society, held in Bloomington last May, the following resolution was passed and was published in the June number of the JOURNAL.

WHEREAS, A great crisis now exists in America, and many physicians are being called to the service of their country; therefore, be it

Resolved, That the neighboring physicians care for the patients of such absent physicians, returning to him or his family 50 per cent. of the money received therefor, and return such patients to the physician upon his return.

The following is the plan as outlined by the Baltimore Society:

PUNISHING PATRIOTISM.

A SUGGESTED METHOD OF MEETING THIS EVIL.

Undoubtedly in the past civilian doctors who have been patriotic, and who have served their country in the army or navy, have been in a measure punished for such service by finding their practice dissipated and gone on their return home. The knowledge of this has naturally acted in preventing many a physician entering the Officers' Reserve Corps of U. S. at this time.

To meet this situation the committee proposes to have offered the following resolutions at the annual meetings of the State Societies:

(1) "Resolved, that the (name of state society) recognizes the patriotism of those members of the medical profession resident in ..... who volunteer for the service of the U. S. Government, and in appreciation of this we recommend that should these members of the profession be called into active service the doctors who attend their patients should turn over one-third of the fees collected from such patients to the physician in active service or to his family."

(2) "Resolved, that the secretary of the society shall have prepared letter-blanks according to the form attached, to a number sufficient to supply those physicians who are called into active service, with a sufficient number, so that they can send a filled-out form-letter to each patient or physician referring a patient, a carbon copy going to the doctor who has agreed to look after the physician's practice, and a second carbon copy to be sent to the secretary of the State Society.

The secretary of the State Society is instructed to file the carbon copies received by him, and on notification by a physician that he has terminated his service with the Government and has resumed his practice, the secretary of the State Society shall then send out to each of the patients of this physician and doctors who have referred patients whose names and addresses he has received in the filed letters, a letter stating that the physician has resumed the practice of medicine, and requesting the patient and the physician in the name of the society to recognize the physician's patriotism by summoning him should he be in need of medical attention.

(3) "The secretary of the State Society is further instructed to have printed and sent to each member of the profession resident and licensed in the state the card entitled "Agreement," and on return of such signed card to him to file it."

This method is the only one which we have been able to devise which can in any way meet the situation that confronts the doctor who is patriotic, and who is penalized for his patriotism by the loss of his practice. By this method the profession at large is "put upon its honor," the patients of the physician are urged to retain his services, and this urging is done, not in the doctor's name, but in the name of the profession and as a patriotic duty.

It is further recommended by the committee that after three notices have been sent, at intervals of one

month, to each physician, a list of those doctors accepting such agreement shall be published in State Journal or otherwise.

"AGREEMENT."

I agree to abide by resolution adopted in relation to fees for attendance on patients of doctors ordered into active service for the Government, and to keep such books as will readily show collection of such fees. I further agree to ask every patient whom I have not previously treated the name of his usual or last medical attendant and if such doctor is in the active service of his Government to turn over monthly or quarterly to such physician, or his family, if he so directs, one-third of the fees collected by me from this patient.

I further agree that when patients are referred to me by a physician or person who has not heretofore referred patients to me, to find out from such physician or person to whom, in the immediate past, they have usually referred their patients requiring the special services I can render, and if such physician is in the active service of his country, to turn over to him one-third of the fee collected from such patient. This paragraph shall likewise apply to consultations.

I further agree not to attend any patients referred to above, for a period of one year following the resumption of active practice by the physician who has been in active service.

In the remote chance of misunderstandings or disagreements arising under this resolution, I agree to submit the facts to the Board of Censors of the County Society and abide by their decision.

(signed).....

Date.....

After signing please mail this to Secretary of State Society.

Dr. .....

Address.....

PROPOSED FORM LETTER.

(Regular Letter-Head of State Society.)

M.....

Street.....

Post Office.....

Dear.....

As a member of the Reserve Corps of the United States Army, I have been ordered into active service by the Government, and on that account I am writing to you of this fact, so that, in case of illness, you may summon Dr. ..... In my absence Dr. ..... of ....., Telephone No. ....., has kindly consented to attend my patients and I can heartily recommend him.

Sincerely,

.....

Resolution adopted by (Name of State Society):

"Resolved that the (Name of State Society) recognizes the patriotism of those members of the medical profession resident in ....., who volunteer for the service of the U. S. Government, and in appreciation of this we recommend that should these members of the profession be called into active service the doctors who shall attend their patients should turn over one-third of the fees collected from such patients to the physician in active service or to his family."

PLEASE PRESENT THIS LETTER TO ANY DOCTOR WHOM YOU MAY CALL IN TO ATTEND YOU.

Correspondence

THE CHICAGO LEAGUE FOR THE HARD OF HEARING, INC.

101 Auditorium Building, Chicago.

The problems of the hard of hearing are not met as class problems by any organization in Chicago, and, feeling the need of organized help, The Chicago League for the Hard of Hearing was organized in January, 1916, by a group of the hard of hearing and teachers of the deaf. It has worked along the same lines as the New York League for the Hard of Hearing, which is now an organization of some 600 members. Within the past year other leagues have been organized in Boston, San Francisco, Los Angeles and Mobile.

The objects of the Chicago League are:

1. To assist the deaf and hard of hearing in procuring and retaining employment.
2. To encourage the study of lip-reading.
3. To alleviate the social isolation of the deaf and hard of hearing and to assist them in every possible way.

It has seemed necessary to limit our work to some extent and for this reason we are working primarily for those who have lost their hearing as adults, and not for the congenitally deaf who have organizations of their own.

The most difficult and most important part of our work is finding employment for applicants. Many men and women are thrown out of work when their hearing becomes defective, and many are incapacitated for work in lines in which they have been trained. It is almost impossible for them to find work in the usual way. The employment departments of many firms have orders not to employ the handicapped and a deaf man is usually refused work. The league has found it necessary to arouse personal interest in order to secure positions for applicants; but many employers are willing to give work to the deaf if they have had experience in certain lines of work or if they are really fitted for certain positions.

By taking each case individually and by trying to secure work which is suited to each applicant we believe that satisfactory results will be obtained. Deafness in itself does not seem to be the real obstacle in the way of finding work, but deafness plus lack of training is a combination before which employers hesitate. Some of those who have come to the league for help have had no special training and some have

been thrown out of employment because hearing has been necessary in their particular line of work. The difficulty in placing these people has led to plans for vocational training which we hope to carry out in the near future. There are various lines of work in which the deaf can be trained advantageously: among others, printing, book-binding, typewriting, designing and some of the trades, and training in these vocations will enable a man or woman to command a fair salary indefinitely.

The second aim of the league is to give help in lip-reading. It has not seemed necessary to give free lessons because there are eight evening schools in Chicago with free classes in lip-reading, but the league has three free practice classes each week which are a great help, and the league room may be used for lip-reading practice at any time.

The third aim of the league is to overcome the social isolation of the deaf. The room is open every afternoon and one evening a week, and the weekly program consists of an informal tea, a card club—the proceeds of which are donated to the Red Cross—three lip-reading practice classes, lessons in crocheting, embroidering, etc., and Red Cross knitting. A Red Cross auxiliary has been formed and yarn can be supplied to members free of charge. Every month an entertainment of some sort is given, which is planned with the idea of making an appeal through the eyes instead of the ears. An interpretive dancer, a chalk artist, a demonstration of work done by deaf children, and folk dancing are on the program for the winter; and these will be enjoyed by many who for years have been shut off from social activities of any kind.

The average monthly attendance at the league room is about 200; the attendance at special entertainments about 100; the membership of the league about 200, most of whom are hard of hearing. The General Acoustic Company has given us an estimate of 15,000 hard of hearing people in Chicago. If these figures are correct, we have a large field in which to work, and we know from experience that this work is greatly needed. And the point of greatest usefulness can only be reached through an enlarged membership. The league is not a charitable institution, and it solicits no funds. It is maintained by the membership dues and interested friends. Therefore, a large membership is necessary if effective results are to be obtained.

Publicity is greatly needed, and we believe that the co-operation of physicians upon this point would be of inestimable value to us. The work of the league should appeal particularly to physicians, because we are trying to help men and women who have been their patients at one time or another, and whose present need of assistance is the direct result of their incurable physical condition.

We should be glad to have hard of hearing patients sent to us if they are in need of work or of companionship, or if some new interest in life with which to overcome the mental depression which often accompanies deafness. We should be glad to have others sent who can give their time to this form of social service; and for those who do not need the help of the league themselves there is always a membership which will enable the league to extend its field of usefulness.

GERTRUDE TORREY.

THE LATEST DEVELOPMENT IN PHYSICIANS' AND SURGEONS' LIABILITY INSURANCE POLICIES.

Pursuant to its policy of improving contracts and service, the Aetna Life Insurance Company of Hartford, Conn., is at present submitting to the doctors of Illinois in a new form an old type of protection, interesting to that profession—i. e., Physicians' and Surgeons' Liability Insurance.

We desire to call particular attention to the fact that when a doctor buys liability insurance protection against what are usually called malpractice cases he is purchasing a contract under which he may be compelled to call upon the insurance company for the payment of losses many years hence; this for the reason that during the period that the insurance is being carried for him an act may be committed which will cause a suit to be brought many years hence. A minor has a right to bring suit in Illinois any time before he is twenty-three years of age, and when you add to such a waiting period the time necessary to have a case of this kind finally decided in the Supreme Court of this state you will preceive that it is quite possible that from twenty-five to thirty years after the act was committed you may be looking for the company to pay the judgment that has been recovered against you. On this account it behoves every doctor to purchase this kind of insurance from the strongest possible organization, which, in the course of ordinary human events, will be certain to be here and able to pay the judgment if called on in the far distant future. This comment is particularly germane to this subject when we observe that several presumably strong casualty companies have retired from business during the past two or three years.

The policy is written on a so-called "group plan." It is issued only to members in good standing of medical societies. A single policy only is issued, written in the name of a group of members of the designated medical society. It requires that before it shall become effective a certain percentage of the membership of the society shall adopt this form of insurance and become members of the group. It is in no event written for less than a group of fifteen, and in societies of large membership requires that at least 25 per cent. participate.

The group policy itself is held by a trustee elected by the members of the group, and each doctor named in the policy receives, as evidence of his insurance, a certificate setting forth the exact period that his insurance is carried under the group policy and the premium that he has paid for such protection.

A careful investigation has shown that possibly the

chief cause of malpractice claims is indiscreet criticism of a physician's or surgeon's work by another physician or surgeon. One of the chief advantages of the plan is that in the formation of such groups it will build up a "get together" spirit, and thereby this cause for claims will be largely eliminated.

In short, "Co-operation" is the essence of the "Group Form Plan."

This proposal has been presented and approved by nearly two hundred of the county societies in the United States, and over one hundred and fifty groups in such societies have been successfully formed, and the experience so far developed in the handling of the claims arising against the members of these groups indicates that the result sought to be achieved by the plan can be secured.

The policy provides full and complete protection against every civil claim for malpractice brought by any person, based on any kind of alleged malpractice, error or mistake occurring in the practice of the doctor's profession, until (if ever) it shall be shown that the damage was caused by the assured or any assistant of the assured while to any extent under the influence of intoxicants or narcotics or while engaged in or in consequence of the performance of an unlawful (criminal) act. Unlimited defense, including appeal bonds as security where necessary, is a provision. Over and above this item, its limits of indemnity vary from those of some other companies in this line, in that they are *$5,000* for the individual case, and *$15,000* for each year's claims, instead of *$15,000* for all claims that may develop during the term that the policy is carried, irrespective of the length of time.

One of the most important features of the policy is its special provision relating to the adjustment of claims, the interests of the physician being carefully safeguarded, so that all cases will be properly handled to conserve the best interests of the doctor and medical profession as a whole. The company cannot settle in defiance of the assured's wishes.

The group form plan is now being presented to the various county society memberships in each county by the company's representatives, and the plan should receive the fullest consideration of the medical profession.

H. T. Weston, M. D.

MORATORIUM ON LEASES

To the Editor: The Physicians Lease Committee of the Chicago Rotary Club has written a great many letters and we have brought relief to a great many doctors because of the wonderful co-operation we have had from the Medical Journals.

The publicity obtained has been far reaching and has influenced legislation in that direction.

We suggest that your publication call the attention of your subscribers to Senate Bill No. 2859 entered by Senator Chamberlain. The purpose of this bill is to protect the civil rights of soldiers and sailors during the period of the war.

The bill practically declares a moratorium on leases, mortgages and life insurance policies while in the United States service, during the present war.

We suggest therefore that you have your subscribers send for a copy of the bill and get behind their congressmen and senators for the purpose of having this bill or a similar bill passed through the next session of Congress.

Thanking you for such notice and publicity you may give this matter, I wish to remain

Yours very truly,

R. R. DENNY,

Chairman of the Physicians Lease Committee,
Chicago Rotary Club.

ANNOUNCEMENT

At about the time that the *Medical Review of Reviews* was founded, Professor Dillon Brown, of New York, established a semi-monthly journal devoted to the diseases of children, called *Pediatrics*. The opening article was by A. Jacobi, and the leading physicians of the city, among them J. Lewis Smith, Reginald H. Sayre and William H. Park contributed to its pages. Latterly it has been edited by William Edward Fitch, but Dr. Fitch has recently been appointed a major in the United States Army, and we have acquired his blue-pencil and subscription list.

Pediatrics will no longer appear as a separate publication, but has been incorporated with the *Medical Review of Reviews*. Beginning with January, however, the *Medical Review of Reviews* will contain a special department devoted to Pediatrics. This feature is but one of the improvements scheduled for the coming year. Important Symposia are now in progress. The editor will contribute a second series of Pathfinders in Medicine, a staff of Associate Editors is being formed, and thus the *Medical Review of Reviews* in entering upon its twenty-fourth annual volume, promises to be more serviceable to the profession than ever before.

Sincerely,

Frederic H. Robinson.

BIRTH REPORTING.

The U. S. Bureau of the Census has recently issued its first annual report on "Birth Statistics" for the year 1915. This report presents statistics covering the registration area for births recently established by the bureau, including the six New England states, New York, Pennsylvania, Michigan, Minnesota and the District of Columbia. These states comprise about one-third of the total population of the country, and as more states enact and enforce satisfactory laws for the reporting of births, they will be added to the registration area in subsequent reports.

Different tables give the number of births by states, counties and cities and a comparison of birth and death rates.

It is especially noteworthy that the white birth rate for the total registration area was 25.0 per thousand population and the white death rate was 13.8, indicating a net population increase (independent of migration) of 11.2 per thousand. The colored birth rate, on the contrary, was only 20.6 and the death rate was 22.9, indicating an actual decrease of the colored population, unless offset by immigration in the area covered. It is possible, however, that the registration of births is not as complete among colored as among white persons and that, therefore, the rates shown for the former class are too low.

LITTLE PURE ZINC OXIDE ON THE MARKET.

Examinations made by the Bureau of Chemistry of the United States Department of Agriculture show that very little zinc oxide on the market in the United State complies with the standards of the U. S. Pharmacopoeia. Nearly all of the samples examined contained an excessive amount of lead. The samples were labeled "Not U. S. P.—Containing Small Quantities of Lead," and therefore complied with the Food and Drugs Act. The labels on the packages in most instances will probably come to the attention of the druggists, but not to the attention of physicians. The medical profession will, therefore, not be advised as to whether or not zinc oxide preparations are made from standard ingredients. Conditions may arise where a zinc oxide preparation contaminated with lead may do injury. A limited supply of U. S. P. zinc oxide is available and physicians may protect themselves and their patients from possible injury by calling for such material on their prescriptions.

EXEMPTION BOARD RECOGNIZES ANTI T. B. WORK.

Frees Director of Framingham Demonstration on the Ground of National Importance of Campaign.

New York, October 10.—The importance of the Community Health and Tuberculosis Demonstration at Framingham, Mass., has just been officially recognized in a strikingly practical way by the exemption from military service of Dr. Donald B. Armstrong, Executive Officer of this work. The District Exemption Board, in passing on his case, ruled that he was performing a service essential to the interest welfare of the nation in time of war.

At the headquarters of the National Association for the Study and Prevention of Tuberculosis here, this decision is hailed as definitely putting on the map not only the Framingham work, but the entire anti-tuberculosis war program. The exemption of Dr. Armstrong is held to be peculiarly significant in view of the shortage of physicians eligible for military service.

The Framingham Demonstration aims to determine methods of stamping out tuberculosis in a community by a system of complete control of the social conditions that cause disease. It was begun a year ago and is being carried on under the direction of the National Association for the Study and Prevention of Tuberculosis with a $100,000 fund contributed by the Metropolitan Life Insurance Company.

The exemption of Dr. Armstrong was the result of a claim made by the National Association, backed by statements and affidavits from over fifty leading medical and health authorities of the country.

In this claim it was pointed out that the Demonstration from its beginning was planned by Dr. Armstrong and that a change of directorship now would practically undo the work of a whole year. It adds: "This work is of prime importance not only to the factories in Framingham, including several engaged on government war contracts, but also as a demonstration to industry throughout the United States, both in the present emergency and in the period of intensive health conservation in industry which of necessity will follow the war."

The Demonstration began with an educational campaign of special literature, newspaper articles and public meetings. A local organization was formed to co-operate in the work and to continue it after the demonstration is completed. Then followed a careful study of all the social and industrial conditions of the town and its surroundings, water and food supplies, sanitation of buildings, streets, etc., factory hazards, poverty and its causes, the surroundings of infancy and childhood. As each disease factor is discovered, methods for combating it are established. Two of the most important methods are systematic education of mothers in the care of children and periodical medical examinations for the discovery and prevention of disease in its earliest stages. In the meantime all active cases of tuberculosis are being sought out and isolated where they can receive proper medical and nursing care and no longer infect their families and associates. The Demonstration is to cover a period of three years.

GUIDE FOR FORMULATING A MILK ORDINANCE.

Washington, D. C.—To assist communities in making their milk supply safe, the United States Depart-

ment of Agriculture has issued a "Guide for Formulating a Milk Ordinance." This document, Department Bulletin 585, suggests a form of ordinance designed to protect the community against fraud and disease and to insure cleanliness in the production and handling of milk. Health officers and physicians interested in improving milk supplies may obtain it free on application to the department.

UNITED STATES CIVIL-SERVICE EXAMINATIONS.

STENOGRAPHERS AND TYPEWRITERS WANTED.
MEN AND WOMEN.

The United States Government is in urgent need of thousands of typewriter operators and stenographers and typewriters. All who pass examinations for the departments and offices at Washington, D. C., are assured of certification for appointment. It is the manifest duty of citizens with this special knowledge to use it at this time where it will be of most value to the Government. Women especially are urged to undertake this office work. Those who have not the required training are encouraged to undergo instruction at once.

Examinations for the Departmental Service, for both men and women, are held every Tuesday, in 450 of the principal cities of the United States, and applications may be filed with the Commission at Washington, D. C., at any time.

The entrance salary ranges from $1,000 to $1,200 a year. Advancement of capable employes to higher salaries is reasonably rapid.

Applicants must have reached their eighteenth birthday on the date of the examination.

For full information in regard to the scope and character of the examination and for application blanks address the U. S. Civil Service Commission, Washington, D. C., or the Secretary of the U. S. Civil Service Board of Examiners at Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; St. Louis, Mo.; New Orleans, La.; Seattle, Wash.; San Francisco, Cal.; Honolulu, Hawaii; or San Juan, Porto Rico.

JOHN A. MCILHENNY,
President, U. S. Civil Service Commission,
Washington, D. C.

Public Health

ILLINOIS STATISTICS IMPROVING

Springfield, Ill., November 1.—One of the most active divisions of the Illinois State Department of Public Health at this time is the Division of Vital Statistics. The chief efforts are making in behalf of the registration area movement, as applied in Illinois.

Illinois, in the past, has been notoriously lax in its registration of births and deaths. Until very recently there has been no adequate provision for the assembling of such statistics in a central state department. Now, however, new laws are operative which, if supported by local registrars, physicians, midwives and undertakers, will lead to a registration of substantially 100 per cent. of the births, still-births and deaths as they occur in Illinois.

Director C. St. Clair Drake, of the Illinois Health Department, through his Vital Statistics and Publicity divisions, is waging an energetic and determined campaign aimed to bring the matter of registrations up to where it should be. The registration area, as prescribed by the federal government, contemplates a registration of at least 90 per cent. of the births, still-births and deaths before a state can be said to have entitled itself to such recognition. Data on progress each state is making is secured by United States census officials, one of whom is expected to visit Illinois before the close of 1917.

In addition to the publicity campaign which is in progress in connection with the registration area movement, division men from the State Department of Health are devoting what time they can to meetings with county and township officials. The Illinois law requires that all births be reported within ten days by physicians, midwives or other attendants to local registrars (usually the town or city clerks); and that all deaths be reported at once by undertakers to the local registrars. The registrars, in turn, send their reports to the state office at Springfield, where the records are kept uniform and bound, and secure in a vault.

POLIOMYELITIS

The State Department of Health has noted a material decline in the number of poliomyelitis cases throughout the state in the last ten days. In the week ending October 28 but 38 cases were reported. Twenty of those were in the city of Chicago. Most of the infantile paralysis has been in central and northern Illinois. Without endeavoring to minimize the effects of ravages of the disease, the State Department of Public Health has devoted some time in the last month to an educational campaign, designed to take the "scare" out of conditions attending poliomyelitis, and substitute a sane, hasty, yet composed manner of obtaining medical service when cases are actual or suspected. The department would regard its mission in this regard as well performed, if, in disseminating its doctrine of sane and non-hysterical procedure, it brought about a marked reduction in number of permanent deformities of victims of the disease.

LOCAL EPIDEMICS

Epidemics just now do not seriously menace the health of Illinois citizens. At Edwardsville, Madison county, a larger number of cases of diphtheria than ordinarily occur at this time of year have developed in the last two weeks. At Galatia, Saline county, a bad situation was found with reference to smallpox. A neighboring town reported to the State Department of Health that smallpox existed at Galatia, and, on investigation, it was found that, up to the last of October,

there were 19 cases, none of which had been reported by the local authorities to the state. At Caseyville, Ill., 15 cases of smallpox were found that had not been reported to the state authorities.

A peculiar incident occurred in Divernon, Sangamon county, late in October. William Hutton, who was married, and who returned from his wedding trip, was a guest, with his bride, at a reception given in their honor. Unknown to the guests, Hutton had contracted smallpox. As a result, thirteen cases in four different counties have been traced to exposure during the wedding reception, and others are suspected. Mrs. Hutton was among the later sufferers. All the victims were placed under quarantine.

COUNTY SANATORIA

The interests of the county sanatoria movement probably never were better, or more intelligently promoted than at the meeting of the State Supervisors' Association in Joliet on October 11. Assistant Director of Public Health George T. Palmer was present and addressed the meeting, at which supervisors from substantially every county of the state were present, and in addition had opportunity to discuss, informally, the sanatorium question with individual supervisors who heretofore have not been familiar with its operation. It is confidently expected that 1918 will witness a gratifying progress toward establishing sanatoria in a majority of the counties of Illinois.

INTESTINAL STASIS.

(Continued from Page 357)

arthritis can be cured or even benefited by resecting the colon is preposterous.

In intestinal stasis with extreme prolapse of the stomach and colon where the stomach is down in the pelvis, as I said before, the milk diet, rest in bed and the postural treatment will do wonders in many cases. It is difficult to do and unless you can get the confidence and co-operation of the patient you will fail. I have seen many patients resist, rebel and beg against carrying out this treatment, but with encouragment and persistence the most of them will win out and it is astonishing how easily they will handle themselves afterwards and continue the treatment, retaining their health which they have gained by so hard a struggle.

We have only to read the booklets and pamphlets of medical houses to know the virtues of liquid petroleum in curing intestinal stasis. An ounce or two before each meal and at bedtime will cure the most obstinate case, according to these statements. In spite of the exaggerated and extravagant claims of this product, it is an important mechanical agent in the treatment of this condition. It is beneficial in any line of treatment whether it be medical or surgical.

To summarize: Intestinal stasis is a condition demonstrated by a positive set of symptoms causing very serious ill health. It is associated with a number of abnormal positions and conditions of the digestive tract, but these conditions do not necessarily cause it. The chief cause is probably an abnormal ileocecal valve. When it is associated with extreme ptosis, surgical methods may be adopted at the beginning of treatment. Where it exists without displacements and where it is reasonable to suspect the ileocecal to be incompetent that valve should be restored. As a rule, however, general methods should be given a thorough trial before resorting to surgical operations.

Society Proceedings

COOK COUNTY

CHICAGO LARYNOLOGICAL AND OTALOGICAL SOCIETY

(Meeting of April 17, 1917, Continued)

Ophthalmoscopic examination showed optic nerve atrophy, no swelling of discs, some tortuous arteries; the disc edges were blurred and the adjacent retinal area was grayish. There was a large, painful lymph gland on the left side of the neck. No history of malignancy in the family, no cough, or evidence of pulmonary tuberculosis. The Wasserman was negative. The nasal obstruction had been coming on gradually for several months. A diagnosis of sarcoma was made and confirmed by microscopic examination of tissue removed.

On refusal to operate the patient disappeared. Operation elsewhere resulted in severe hemorrhage and was followed by infection which necessitated an external incision over the right malar region to liberate the pus. Six weeks later the patient returned and was immediately placed on radium treatment. One hundred milligrams of radium were applied uninterruptedly for five hours on three consecutive days. Nineteen days later this was repeated, the radium being applied for six hours each day. Thirty days later fifty milligrams were applied for four hours, and sixty days later the same amount was applied on two consecutive days for six hours each. In addition, radium was applied to the large, painful gland on the left side of the neck. A total of 4,100 milligram hours of radium was applied to the enlarged glands. In employing the remedy the object was to use large doses over a medium period of time, correctly screened and properly applied within the nose and on the face, to secure the most benefit from cross firing. The immediate results from

this treatment were brilliant; the severe pain and nasal hemorrhage disappeared within a week. A week later he was breathing through his left nostril and some air was passing through the right nostril. Three months later respiration through both nostrils was normal and he could blow nose naturally. Inspection showed progressive shrinking of the tumor and disappearance of all ulcerations. The rhinoscope demonstrated the tumor springing from the posterior ethmoid region, which explained the ocular changes. On last examination no evidence of tumor could be seen within the nose or nasopharynx. Three weeks later he was reported as being confined to bed at home with a temperature, pain in the abdomen, nausea, constipation and a cutaneous eruption over the left half of face. A few days later the family physician reported that the patient was suffering from metastasis in the intestines and could not recover. Ten days later he died. Autopsy revealed absolutely no sign of sarcoma in the head and no signs of metastases could be found in the body or on the skin. Examination of the abdominal cavity disclosed a distended gall bladder and a perforated appendix lying in a bed of pus and exudate. The eruption on the face was herpetic, toxic in origin, and the patient had died as a result of peritonitis caused by perforating appendicitis.

DISCUSSION.

Dr. Albert Woelfel said that however one might evaluate this report as evidence of a case of sarcoma *cured* by radium, it was a very good example of the peculiar susceptibility to the action of radium of sarcomas of the upper respiratory passage. It is believed that round celled sarcomas generally respond to radium treatment more readily than other forms, but it is also an observation of radium users that tumors that are nominally of the same type show a different response to radium treatment in different parts of the system. Another thing the case illustrated was the efficiency of distance irradiations. The paper also illustrated the mistaken idea that seems to prevail that large doses of radium are necessary to effect such changes in sarcomata. The reports of Kelly regarding the use of such large amounts of radium have been puzzling, and the only way we can account for them is that he must be using the emanation from these large amounts of radium, which could have quite a different radiating power, unless it is drawn off when the radium is in equilibrium. If such large amounts of radium were applied for any time at close range they would have a burning effect that would not be beneficial.

The final point was that in using radium we should not be so impatient of results; it takes time for the effect to develop. Probably the best general technic to adopt is to begin a series of irradiations, get the gross effect and then wait for some weeks to finally get after the treatment to effect the end result.

Dr. Joseph C. Beck cited two cases of sarcoma which had been treated by Dr. Woelfel by large doses of radium; one was sarcoma of the hard palate, the other of the larynx. In the case of palatal sarcoma the patient received 125 mlgrs. for twenty-four hours in three different treatments, and following that went home. He returned in less than two weeks, when the tumor had entirely disappeared, but he presented a very severe burn on the tongue and of the soft palate, which was very painful, and was produced by the action of the radium. The Doctor had used a screen of a rubber material which contained some metal, which was a mistake and would not happen again, but he thought the accident should be mentioned. There had been no return of the sarcoma after two months.

In the case of sarcoma of the larynx the growth simply melted away. Recent section had shown very few sarcoma cells and very little remained of the tumor. The patient was to have more radium treatment, which he hoped would cure the sarcoma which had been removed twice by external and internal operations and had also been burned by the Percy cautery.

He reported two other cases successfully treated with radium and called attention to the fact that sarcomata are greatly influenced by the x-ray also, deep penetration treatment having almost as good an effect as radium in many cases. Arsenic used in he form of salvarsan or cacodylate of soda is also very effective.

Dr. Robert Sonnenschein said that some years ago he had an opportunity while working in Koenigsberg of reporting the longest standing case of sarcoma of the nose on record. The patient lived for eleven years after the diagnosis was made. It had been shown that sarcoma of the nose is particularly benign as compared with tumors elsewhere. He did not know whether that had a bearing on the cases mentioned here in regard to the efficiency of radium and x-rays, but it may be that the character of the tumor in this location is such that it is more amenable to treatment than elsewhere.

Dr. Charles H. Long thought an important thing was the diagnosis of the tumor, and cited the case of a small boy who was brought to the hospital for removal of adenoids. These were removed and the boy went home, but returned with hemorrhages in the throat. Dr. Zeit examined the specimen and pronounced it sarcoma. The patient was brought to Dr. Long and a special tube was devised for the use of x-ray. Three treatments were given and at each treatment a severe hemorrhage took place with pain in the head, so the mother refused continuation of the treatment. He kept in touch with the case for a year, when he was hurriedly summoned as the boy was supposedly dying of suffocation. The patient presented all the symptoms Dr. Stein spoke of, and examination revealed a long, narrow piece of flesh lying parallel with the tongue, which seemed to have an attachment in the throat. This was very sensitive and movable, only twisted on its pedicle and had become strangulated. The child was sent to the hospital, another examination was made and the report was fibroma. According to the literature it is often difficult to differentiate between round celled sarcoma and fibroma in their early stages. They removed a tumor which was larger than a goose egg and had many tentacles beside the one in the mouth. The growth was removed through the mouth by incising the hard and soft palate, encircling the pedicle of the growth with a wire snare, then resecting the roots, which were widely attached. The child made a good recovery.

Dr. C. W. Hanford thought it was well in such cases as Dr. Stein reported to start with 100 mgs. and quickly diminish it to about 40 mgs. or even less. He believed no amount of radium, small or large, would have any effect on carcinomas of the tonsils or base of the tongue, except possibly to add a few months to the patient's life and keep them more comfortable. He called attention to the clever appliances that have been devised for holding radium in contact with growths of the soft palate, thus causing them to disappear very rapidly.

Dr. Stein, closing, said he had used radium in this case with a great deal of misgiving—first, because of the discouraging reports and, second, because it has been almost impossible up to this time to get a sufficient amount of radium. He thought radium to be of any value had to be used in large amounts properly applied. He realized that sarcomatous growths in the nose sometimes disappear spontaneously, but since the growth in this case had disappeared under the application of radium, and they were fortunate enough to be able to prove its disappearance by the post mortem findings, he felt justified in thinking that radium had produced the change.

He had been surprised to hear Dr. Beck speak so favorably of radium, as he had discouraged him greatly in the past concerning its use. Perhaps the Doctor's change of opinion had been brought about by the use of larger amounts of radium, and it might not have been applied properly. He hesitated to take the improvement of any of the cases reported by Dr. Beck very seriously, as they were evidently very recent cases. He believed a longer period of time should elapse before such cases were reported—and something more than merely improvement in the condition.

There is still much to learn about radium, but such cases as this are highly instructive.

Dr. Joseph C. Beck (replying to Dr. Stein) said the reason Dr. Stein was able to make such a definite report was by reason of the untimely death of the patient. He thought the criticism of his report was not well taken; the report was not

made as final, but he believed in such cases it was well to make a report from time to time. The case of palatal tumor had not returned after two months but may still recur. Ten years ago he reported on his negative results with what he thought was radium, but it was not pure. He had subsequently used ten milligrams of pure radium, which was as much as he could afford to have in his possession at that time. Neither of these amounts was sufficient in such desperate cases as cancer. Since it had become possible to have access to large amounts he had gone to work again and was reporting his present results. Under no circumstances did he wish, by his reports, to discourage anyone from experimenting, but he believed in being very critical in the use of these new methods of treatment, since truth will out.

CHICAGO OPHTHALMOLOGICAL SOCIETY.

A regular meeting was held, May 21, 1917, with Dr. Francis Lane in the chair.

REPORT OF FOUR CASES OF OCULAR TUBERCULOSIS TREATED BY TUBERCULIN.

Dr. Thomas Faith said that these cases were selected from amongst a number of cases of tuberculosis of the eye which had come under his care in the past ten years, and have been chosen because of the fact that in addition to the general interest attached to such cases each case teaches a lesson which should be remembered if we are to manage the treatment of this affection to the best advantage.

One was a case of sclero-keratitis, two of choroiditis, and one of optic neuritis or neuro-retinitis.

The report of the following case will serve as an illustration of the other three: Patient, Mrs. A. M., aged 23, housewife, was seen first December 30, 1911. She was of a family of five children, three living, two sisters older than the patient died from some pulmonary trouble. Father living at the age of 66. Mother died when patient was 8 years old, cause not known. Two brothers younger than patient are living and in apparently good health. Personal history: Has never been robust. Has had swellings in the neck since a small girl; has suffered from indigestion and intercostal neuralgia much of the time for several weeks; looks pale and is under weight. She had an attack of pain and inflammation in the left eye eight months ago, which was diagnosed iritis, and for which she was treated over a period of five or six weeks. She complains now of pain and inflammation in the right eye, present one week. This condition followed immediately after a severe attack of lumbago and sore throat. There was a typical anterior scleritis present with swelling and tenderness just beyond the upper margin of the cornea. Atropin, dionin and hot applications were ordered locally, and calomel and salicylate of soda internally. A urinalysis at this time was negative. The nose and throat were examined and evidence of the previous attack of tonsillitis could be easily seen. There were several enlarged glands in the posterior cervical region, and the glands of the internal jugular area were also enlarged. There was no venereal history and a negative Wassermann was obtained in the next two days. The pupil dilated well under atropin, but the eye remained painful and tender with only an occasional slight improvement for the two following weeks. A thorough, painstaking physical examination was then made as well as a blood count and nothing of any importance was found. He then determined to remove the tonsils as they were distinctly diseased, and did so on the sixteenth of January, 1912, using the Tydings snare. He thought at first that he had found the cause of the trouble as there was a distinct improvement for the first weeks after the tonsillectomy; but by the tenth day after the operation the condition was as severe as before. For two weeks following this time, in spite of the negative Wassermann, patient was put upon inunctions of mercury and iodid of sodium and instead of improving continued to grow progressively worse. After doing the tonsillectomy and during the time that the antiluetic treatment was being administered the patient's temperature was kept track of each time that she came to the office and it was observed that the afternoon temperature was usually above normal. From the 12th to the 20th of February patient was kept quiet at home, and the temperature recorded every 3 hours from waking until bed time. The result of this test was that he found the patient's temperature ranging from 97 to 98° F. in the morning to 99.8 or 100.2° in the evening. At this time the infiltration had extended well into the cornea and the sclera was thickened, swollen and tender.

On February 20, 0.5 mg. of C. T. was given and was followed in 18 hours by a sharp general and focal reaction. Temperature went to 101.6°. The eye became more inflamed and painful, and there was some soreness of the glands of the neck. Following this there was a gradual subsidence of the temperature and an improvement in the eye condition. After about 12 days, when the temperature had receded to and remained at the same average as before the test, treatment was begun with Mulford's T. R., No. 1, and this was repeated at three-day intervals, gradually increasing the dose in the usual proportion and watching constantly for evidence of reaction. This came with the fifth dose and he was obliged to rest a week and then increase the interval to five days, and when the dose had been raised to 1-1000 mg. the interval was increased to seven-day periods and was so continued.

There were never any new nodules formed on the sclera after the fifth injection, and the temperature only went above 99° twice after the twelfth treatment. The eye began to clear rapidly after the sixth injection and by the time the tenth was given there was not a trace of active inflammation remaining. This case was given in all 22 injections, and up to September, 1914, had never had a recurrence. Her adenitis disappeared and her general health was improved in every way.

After citing reports in detail of the other three cases, Dr. Faith stated that each of these cases teach an important and valuable lesson. Case 1 shows that a tubercular process may be engrafted upon or added to some other even acute condition which seems to prepare the tissues for the localization of the tubercular process. Case 2 shows that even in the absence of any definite physical finding in the chest, the diagnostic dose should always be a small one in order to

prevent not only local, but possibly general disaster to the patient. This case also shows that an injury may be the determining factor in the localization of a tubercular process. All four of these cases teach one not to rely too much upon physical examination of the chest for corroborative evidence in making the diagnosis. Case 4 demonstrates that it is sometimes necessary to make a number of diagnostic tuberculin tests before making up one's mind as to the presence or absence of tuberculosis as the causative factor in the case. Two of the cases likewise show that one should not be tempted to make the injections at too short intervals or to increase the size of the dose too rapidly. It is well to give the smallest possible dose which will produce a result without a reaction.

DISCUSSION.

Dr. George F. Suker stated that Case 2 cited by the essayist was a very illustrative case, showing that the diagnostic dose of tuberculin was too large and the end result therefore disastrous. Tuberculin diagnostically used was a double edge sword, and one could, without these large doses of tuberculin, diagnosticate tuberculosis. An x-ray should be taken. One could have lymphatic nodes in the presternal region. One could have a temperature chart, and whether the tuberculosis be local in the eye, or be limited to the lung tissue, the signs and symptoms and the general course of temperature must be and often are alike. It made no difference whether the patient had tuberculosis of the big toe or eye, that patient was bound to run a temperature, and if one took the temperature at regular short intervals he would find it was elevated, hence it was advisable to guard against the use of excessively large doses of tuberculin for diagnostic purposes, as they were disastrous to the eye. The smallest possible dose of tuberculin that gives a minimum reaction is more than sufficient to make a diagnosis, and the therapeutic dose should never give any reaction. The therapeutic dose should not be repeated too often in quick succession; long intervals between injections is better. Furthermore, the general regimen of the patient should be properly taken care of. Tuberculosis of the eye should be treated upon the principles underlying the treatment of a tuberculosis of the lung. Tuberculosis of the posterior globe was usually one of chronicity and not of acuteness.

As to tuberculosis of the choroid, it had been the speaker's observation, both personally and from the literature, that such lesions of the choroid should be gingerly handled as regards the injection of tuberculin for therapeutic purposes, rather more so than tuberculosis of the iris or of the ciliary body and processes. All intraocular tubercular lesions are very apt to give some systemic symptoms, if one searched carefully for them.

Dr. Richard J. Tivnen said there was no class of cases that caused the ophthalmologist more distress and taxed his patience more than these tubercular subjects. It required an infinite amount of perseverance and an infinite amount of assurance and stimulus on part of the patient to assure him that he should continue and fight it out. He endorsed the paper because the essayist had outlined a definite procedure for handling these cases and had pointed out the great danger from the use of tuberculin when given in too large doses. Any one who had used tuberculin quickly found out it was one of the most dangerous agents at the command of the ophthalmologist, particularly so from two standpoints. First, to be able to determine precisely the individual dose that is suitable for the particular patient that confronted the practitioner, and second, the problem was how frequently the dose should be administered. Some one had said there was no such thing as dosage and this was particularly true of tuberculin.

Another point the speaker emphasized was this: There was no class of cases where teamwork was more essential than in these cases of ocular tuberculosis—teamwork with the internist and with the nose man, and so on.

These patients should, if possible, be kept under observation in a hospital. They should not be of the ambulatory type. While Dr. Faith had some of his cases under observation for six months it was difficult to keep patients under observation for that length of time. When one undertook to treat a case of this nature he should follow a definite line of procedure, and if this was done in the handling of these cases, both from the diagnostic and therapeutic side, great good could be accomplished.

Dr. Willis O. Nance stated that the results from the use of tuberculin in his experience had been rather varied. In some cases he had been able to get almost magical results, and in other instances the results had been disappointing.

Since the publication of Verhoef's monograph several years ago on the etiology of scleritis in which attention was called to the fact that the majority of these cases were due to tuberculosis, the speaker had followed out treatment along these lines in all cases, except where he believed there was some other etiologic factor. He called attention to a case he had under observation at the present time. A woman had had recurrent attacks of scleritis for more than two years, had been treated by a number of ophthalmologists of Chicago, and when she came under his observation last fall he had a tuberculin test made, and a very thorough physical examination made, including the microscopic and clinical examinations. The conclusion was that the patient was suffering from ocular tuberculosis. She responded promptly to the tuberculin test. The Wassermann test was negative. She had had three Wassermanns made at different times. Dr. Nance treated her with tuberculin T. R. and about the 10th or 12th injection she developed a very severe focal reaction. In fact, it alarmed her, she stating that the eye was in a worse condition than it had been during the two years she had been suffering from the disease. There was absolutely no benefit whatever from any of the injections. The result was so alarming that he decided he would allow the patient to rest for a while as far as injections were concerned, and he substituted the iodid of potassium. He began with 30 grains a day and rapidly increased it until it reached about 60 grains, three time a day. The eye began to clear up and the dose was finally increased to 270 grains a day, and very soon the eye was perfectly clear. The amount was then reduced to 150 grains a day, which she is taking at the present time, with a very satisfactory result. This case showed that the Wassermann test was not a positive diagnostic test, neither was the tuberculin test always positive by any means. This patient showed no symptoms whatever of syphilis in any form. The family history was excellent, yet this case of scleritis yielded beautifully to large doses of iodid of potassium.

TOTAL SYMBLEPHARON.

Dr. J. A. Pratt, of Aurora, said that in total symblepharon, as well as in any symblepharon, the aim of the surgeon should be to restore the condition to normal with the least possible operative procedure. To Hotze, Wilder, Weeks and Woodruff, we owe the great advance in operating for this condition. The paraffin coated block tin plates, and Weeks' method of restoration of the inferior cul-de-sac by anchorage to the periosteum of the rim of the orbit, has made the transplanting of the Thiersch grafts possible. In previous operations his difficulty was the placing of the grafts, and he presented a method, while possibly not new, he was unable to find it described. It was the suturing of the Thiersch grafts to the block tin plate, which avoided all difficulty in the handling of the grafts, and greatly simplified the operation.

The case which he reported was operated upon by this method. About six months previous to his seeing the patient he was burned by hot metal. The eye was destroyed as well as parts of the edges of both the upper and lower lids. The eye was eviscerated by the attending physician and when healed there was

total symblepharon with a fissure where the palpebral opening existed. The mucous membrane was entirely destroyed.

With such an extensive surface the question of manipulating the large grafts necessary to cover the wound, brought forward the idea to suture the grafts to the plate. A plate of block tin a little larger than a normal conjunctival sac and curved to fit the same was made. A double row of holes was bored through the center in the longer diameter, so it would only be necessary to cut a graft large enough to cover one-half of the plate, and each graft could be sutured on separately. Commercial paraffin was used to coat the plate, care being taken to clean each hole of the paraffin.

After the grafts were cut from the arm they were sutured to the plate with the raw side out and the sutures tied on the convex surface. The plate with the grafts attached was now placed in the normal warm salt solution.

In preparing the socket, the lids were first dissected free from the shrunken globe for about one-eighth of an inch, and an anchor suture passed through the globe, to be used to draw the stump in different directions while dissecting off the lids. The lid dissection was performed with a Beard lid knife, to the extreme limit of a normal superior cul-de-sac, and to the orbital edge inferiorly. After the dissection the orbital edge should be felt sharp and distinct. After the wound was dry, the plate with the grafts was slipped into place and allowed to remain free. Both eyes were now bandaged and the patient kept in bed. On the second day the bandage was removed from the operated side, and an instrument passed between the edges of the lids, and the secretion was removed. Thirty-five per cent. argyrol was now instilled. He had prevented partial symblepharon in fresh burns in the eyes by the instillation of 35 per cent. argyrol, after separating the raw surfaces. The coagulation and deposit kept the surfaces from growing together. This line of treatment was continued for 6 days, at which time the sutures used to hold the grafts to the plate were removed, leaving the plate free and the grafts adherent to the new socket. The bandage was now removed from the well eye and the patient allowed to go home and report to the office for treatment.

The holes in the plate allowed the cavity to be flushed. At the end of 20 days the plate was removed, small granulation points were nipped off and a smaller prothesis of block tin was introduced. The cavity continued to shrink, and at the time the case was presented to the society, October 16, 1916, the prothesis worn was about one-half the size of the original operative prothesis and the cavity was entirely lined by epithelium. The case was presented for advice in reference to the use of foreskin in deepening the shrunken superior and inferior cul-de-sac. Dr. Suker at that time advised against the use of foreskin because of its future shrinkage, but later at the academy meeting in Memphis, recommended its use for these cases.

In the second operation to deepen the superior and inferior fornix, half moon plates were used with a row of holes at the palpebral edge through which to suture the grafts, while in the edge of the plates opposite the sutures holes were placed, two holes for anchor sutures.

The Weeks' operation for the restoration of the inferior cul-de-sac was performed. In operating on the superior cul-de-sac the anchor sutures were brought out at the superior edge of the orbit and tied over a roll of gauze. The technic of placing the grafts was the same as in the first operation, except that grafts were sutured to the enlarged external and internal canthi. The results which were seen in the picture submitted were obtained by these two operations.

The author considered there were two mistakes in the first operation. First, the grafts were made a little too small, and, second, the external and internal canthi should have been covered by suturing grafts to the same. He felt confident that if these two mistakes had not been made the socket would have been completely restored by the first operation.

DISCUSSION.

Dr. George F. Suker said the use of foreskin was not very applicable when one wanted to cover a large surface, as it had a tendency to contract too rapidly, particularly where excessive cicatricial tissue had already been formed, and where one had to cut cicatricial tissue tissue to get a space to be filled in with a graft. He had discarded the use of foreskin for grafting, with the exception, perhaps, in cases of resection of the tarsus for trachoma for the restoration of the retrotarsal fold.

He had under observation a patient who had a complete symblepharon of the upper and lower lids, and an intact eyeball, in which he succeeded in freeing the upper and lower lids, and today this man was able to recognize daylight from darkness and recognize moving objects. In this particular case he used foreskin seven or eight times, and he was still trying to get a suitable graft to further enlarge the upper cul-de-sac.

As to fixing the graft to the plate, he stated that the late Dr. Hotz employed that method constantly before he inserted the graft. The secret of successful grafting is that the graft should be fixed to the plate as well as to the receiving area by means of sutures. Second, the graft should be three or four or even six times larger than the area to be filled in. He had seen transplanted grafts half the size of his hand or even larger shrivel down to almost nothing. It is the fixing of the graft to the plate and edges of receiving area that prevents shrinking in a goodly measure.

Dr. Willis O. Nance said the case reported by Dr. Pratt was an exceedingly interesting one and the result very good. It was an operation that was devised, he thought, by one of the members of the Society, Dr. Harry Woodruff, about ten years ago. Dr. Woodruff did considerable work along this line at the Eye and Ear Infirmary at the time, including attaching of the graft to the plate. The speaker did the operation a number of times and remembered very well an experience he had at first in getting the graft properly sutured to the plate. It was not an easy thing always to do this. He cautioned the members of the Society against using this method in cases of partial symblepharon in which the eyeball remained in the orbit. He had seen a cornea become necrotic as the probable result of the insertion of a metal plate in the eye. Since that time he had been very careful about using this method in cases where the eyeball remained in the orbit.

Dr. Richard J. Tivnen, in speaking of the method of anchoring the graft to a tin plate, said he saw Dr. Woodruff employ this method at the Eye and Ear Infirmary. In a recent case he had the same difficulty that Dr. Pratt had from adhesions forming about the inner canthus, and he was glad to know

the use of argyrol prevented the formation of these adhesions. Shrinkage could be prevented by inserting a block tin plate and keeping it there for a certain length of time so that things became adjusted more or less permanently.

It was difficult to get a graft large enough; it should be very much larger than the area one was going to cover. Proper anchorage of the graft was the vital thing. Sometimes the speaker had taken the graft for the upper cul-de-sac and inserted a suture in the apex or button, and in addition put in a block tin plate. A difficulty had been in getting the surfaces apart at the inner and external canthi.

Dr. Thomas Faith thought the method described by Dr. Pratt of anchoring the graft was a little different from that usually employed. If he understood him rightly, he anchored not only the graft but the plate up in the cul-de-sac. Most operators attached them to the edge of the lid, keeping them in that position, and allowed the plate to hold itself in the cul-de-sac by being fastened to the lid. He had seen a number of cases in which the plate had been gradually pushed out before one was ready to take it out. The scheme of anchoring the graft to the plate and all would obviate that.

Dr. Francis Lane said a point was brought out in the preparation of the Thiersch graft that the vascularized tips of the papillae of the skin should be left intact when laid on a dry surface. With slight oozing of serum, the capillaries very rapidly grew from the prepared surface into the vascularized tips and minimized the shrinking process which took place after the graft was put in place.

GLAUCOMA AND AUTOINTOXICATION.

Dr. Clark W. Hawley presented for consideration a report of four cases of glaucoma that had been under his care for the past year. In these cases his results had been so superior to any that he had been able to get before he felt justified in bringing them to the attention of the society.

A year ago he received a call to see a patient in a neighboring village who was said to be suffering from iritis. The patient was a lady, who, at the breakfast table, found that she could not recognize her friends about her. He found her in bed with all the symptoms of acute glaucoma. She had nausea, loss of vision in the left eye, increased tension and a dilated pupil. She had diagnosed her own case as one of iritis, as the symptoms were similar to an attack she had a year or so before. A Chicago oculist advised the use of atropin. Patient had lost the right eye some time before, as an iridectomy had been done, but without result favorable to vision. He at once prescribed for her, and in getting a more complete history of the case he was in some way impressed with the idea that she was suffering from an extreme case of autointoxication, suspecting the source to be the lower bowel. He gave his usual instructions to be followed in such cases, not waiting for the urinal test, which was carried out later on and confirmed his suspicions fully. Patient improved so rapidly, much more so than any case he had had under myopics, that he was surprised and wondered how much the autoinfection had to do with it. As soon as the patient was able to come to his office, he found vision 20/80 in this eye, a very little in the other or lost eye. In a very short time vision was 20/40, and came on rapidly to 20/20, and the near also became normal. The patient, after a year of treatment, considered herself cured. The treatment for the autointoxication was still continued, as it was impossible to cure a case of this kind of infection in a short time. The bowel would take on a normal condition only after months on a very restricted diet and bowel flushings. Not enough time, he thought, had elapsed to make a positive statement, but of this fact he was sure, that in his twenty-five years of eye work he had not had such results as in this and the other three cases, so that he was justified in at least thinking very seriously of autointoxication as having something to do with the cause of glaucoma. He was led to this idea by his experience with a number of cases of irido-cyclitis and chronic cyclitis which he published two or three years ago.

Lastly, he stated that he absolutely would refuse to look after any patient who refused to follow his instructions absolutely, and it was only under this strict regimen that results could be accomplished.

DISCUSSION

Dr. J. A. Pratt, Aurora, reported a case due to infection outside of the bowel, showing that a patient may have glaucoma caused by infection. This patient was a man who lost one eye about 16 years ago, and 8 years thereafter he began to have attacks of iritis in the other eye a number of months apart. These attacks gradually became worse until he developed irido-cyclitis and later, after having had them for two or three years, off and on, he had an attack of glaucoma. Iridectomy was performed. Before this patient had his tonsils removed. The Wassermann and other tests were made with negative results. His bowels were looked after. He was not allowed to eat meat; he was not allowed to smoke; he stopped drinking, and each one of the attacks cleared up under Turkish baths and large doses of sodium salicylates, with eserin. The attacks continued after the iridectomy. Patient went for nearly a year without an attack, then he had two or three slight attacks. His teeth were x-rayed and trouble was found with a left central incisor, although it was the right eye that was affected. This tooth was extracted when he had an acute glaucomatous condition, which was controlled by eserin, and it was found that half of the root of this tooth had been absorbed. As soon as the tooth was extracted the patient was taken off of eserin. The second day thereafter his symptoms disappeared, and for the last six months he had not had any trouble. It looked to the speaker as if the trouble in this case originated from an abscess in the central incisor.

Dr. Von Der Heydt said that while hygienic measures were essential in the class of cases reported by Dr. Hawley, and a vegetarian diet could be advised, as advocated, he thought it was a therapeutic error to lay so much stress on these things and to exclude miotics in inflammatory glaucoma as had been done in one of the cases reported. He thought miotics were still the remedies par excellence.

Dr. Willis O. Nance said there was no doubt but what autointoxication figured to quite an extent in the causation of many eye diseases. He remembered that several years ago, when de Schweinitz first called attention to autointoxication in the causation of cases of iritis, he made it a point to go into the etiological factors of many eye diseases in relation to this condition, but was disappointed in the results. Recently, if he was not mistaken, de Schweinitz had backed down somewhat from his, at first, very enthusiastic idea of autointoxication as the cause of many eye diseases. He did not think Dr. Hawley would treat cases of acute glaucoma simply along the line of flushing out the bowel and the abolition of a meat diet. He certainly would do iridectomy just the same in cases of acute glaucoma because a delay of 24 hours in some of these cases meant destruction of the eyesight, yet the idea advocated was a good one on general principles. Most of the cases of glaucoma occurred in middle aged or elderly people, and the abstinence from a meat diet, with bowel flushings on general principles, was excellent treatment, but he did not believe the essayist would rely on this alone.

Dr. Thomas Faith stated that evidence was gradually accumulating that some form of chronic intoxication was responsible

for glaucoma. He knew of two instances in which glaucoma had been relieved by getting rid of a focal infection.

Dr. Hawley, in closing, said the object of his paper was not to bring out especially the fact that glaucoma was due entirely to infection from the bowel. That was only one source of infection, but that a large proportion of cases of glaucoma were due to infection somewhere. The speaker would not rely solely on treating these cases of glaucoma by bowel flushings. Miotics and other measures of treatment should be carried out as adjuncts. He ventured the assertion that 90 per cent. of practitioners did not know how to treat autointoxication. He knew of case after case where practitioners had absolutely failed to treat autointoxication successfully simply because they did not know how and because they did not insist on patients doing as they ought to do.

Dr. Harry S. Gradle asked Dr. Hawley whether he had eliminated the possibility of a cyclitis precipitate on the peterior cornea, to which Dr. Hawley replied that he had not.

At the request of Dr. Nance, Mr. Hawley then detailed the instructions he gave these patients in addition to the bowel flushings.

A CASE OF CHRONIC CONJUNCTIVITIS (PLASMA CELLULARIS).

Dr. Harry S. Gradle, in reporting this case for Dr. Bailey, stated that the patient was seen last year both by Dr. Suker and himself and pronounced plasma cellularis. A small piece of tissue was removed, a section made and examined. The case histologically was undoubtedly an instance of clinically atypical vernal catarrh. A blood count taken today showed eosinophilia slightly over 5 per cent. A smear taken from the conjunctival secretions showed no organisms, but an enormous number of eosinophils in the secretion. If this had been done previously they would not have thought it was a case of plasma cellularis.

In the conjunctivitis plasma cellularis was found. The blood picture showed leukocytosis. There might or might not be some plasma and mast cells, but there was a marked increase in the small mononuclear leukocytes, up to as high as 40 per cent.

The first of these cases was reported by Pascheff in 1908. Since then nine others had appeared in the literature. By some authors these cases of chronic conjunctivitis or plasma ecllularis were regarded as a local manifestation of systemic infection, because in some of the cases reported there was febrile disturbance accompanying it; whereas, other authors regarded the disease as a local affair. The speaker was inclined to believe it was a local disease affecting the conjunctiva and its hematopoeitic function. Treatment was not of much value. One case is reported by Elschnig as having been cured by the total excision of conjunctiva. In fact, in this case the local blood picture returned to normal, and the cicatricial or scar tissue that replaced the conjunctiva was no longer of the inflammatory type previously seen. According to the last reports of the patient he saw last year, the condition was unchanged. The boy had had the disease for four years before the speaker saw him, and probably it would continue for some little time. Dr. Lane, who made the histological examination, could tell the society more about the microscopic picture.

Dr. Francis Lane said he reported the microscopic findings in Dr. Gradle's case eighteen months ago, but the findings in this case were different. The epithelium showed in places slight keratitis such as one would find on the papillæ of the tarsal conjunctiva. The case showed mucoid degeneration at the border of the knobs. One thing noticed in particular was an overdevelopment of the connective tissue of the substantia propria. He could not make out any hyalin degeneration because all connective tissue took practically the same uniform eosin stain. There were a few plasma cells, but no more than in the chronic forms of conjunctivitis.

One thing of interest about both of these cases was that it brought up the point of origin of the plasma cells. No cells in the conjunctiva had been discussed more than the plasma cells. But one investigator expressed the opinion that they were often of connective tissue origin. Later investigators, however, were of the opinion that they probably originated from the endothelial cells, such as the small or large round cell. There was very little proliferation or accumulation of small round cells of inflammation. The particular finding was an overdevelopment of connective tissue of the subepithelial structure. Many eosinophils were found in the tissue itself. This was the first thing he noticed in particular.

TENSION IN NORMAL EYES BEFORE AND AFTER TONSILLECTOMY.

Dr. A. M. Carr stated that these observations on normal eye tension before and after tonsillectomy have been recorded in order to establish the effect that the hemorrhage, anesthesia and shock, which accompany that operation, as well as the removal of a focus of infection, have upon normal intraocular tension.

In a number of cases of iritis with secondary glaucoma observed at the Cook County Hospital it was noted that accompanying the improvement of the iritis, following tonsillectomy, there was a marked lowering of intraocular tension. This decrease in tension occurred within twenty-four hours after the removal of the tonsils and was permanent. There was satisfactory evidence to show that the reduction of tension was due to the improvement of the iritis dependent upon the removal of the tonsillar focus of infection as the tension remained unchanged in the eyes in which there was no iritis; nevertheless, it was thought advisable to study the effect of the above factors in normal eyes.

The material consisted of 100 cases of tonsillectomy in which there was no history of eye trouble. None but very controllable patients were used. Their ages ranged from 14 to 67 years. Pus could be expressed from the tonsil in practically every case. About two-thirds of the cases were operated under local anesthesia and the remainder with ether.

The Schiotz tonometer was used throughout and the eyes were anesthetized with holocain. The tension was taken first a few hours before the operation and then twenty-four hours after the operation.

No variation greater than 3 mm. was noted in 95 per cent. of the cases. This degree of variation was

of no significance, as all observers agreed that it was within the range of normal error and should be properly ascribed to the limitations of present day tonometry. In no case was there a variation of 5 mm. in the reading before and after the tonsillectomy.

Two cases had secondary hemorrhage with considerable degree of exsanguination. No difference was noted between the local and general anesthetic cases.

The average tension of the 100 cases was 17¼ mm.; the lowest tension was 10 mm.; the highest tension 26 mm.

He, therefore, felt justified in concluding that in this series of cases tonsillectomy, even when accompanied with considerable hemorrhage, had no effect upon normal intraocular tension.

MAJOR H. WORTHINGTON,
Secretary and Treasurer.

CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY.

The regular monthly meeting of the Chicago Laryngological and Otological Society was held on Tuesday evening, May 22, 1917, at 7:30 o'clock in the south dining-room on the parlor floor of the Palmer House.

The president, Dr. Stanton A. Friedberg, in the chair.

Presentation of Cases

Dr. H. L. Pollock presented a boy of six years who had been referred to Dr. Joseph Beck, with a diagnosis of a papilloma of the larynx. When he was one year of age he became hoarse and gradually grew worse until he was three. He was then taken to a physician, who did a laryngotomy and removed a growth from the larynx, the nature of which was not known. Two weeks later he was taken back on account of difficulty in breathing and a second laryngotomy was performed. At this time there was so much difficulty in breathing that a tracheotomy was also done and a tube inserted. The boy had worn the tube until he was brought to them a few weeks previously, and it had been in his throat for a year without removal. (Exhibited photographs of patient with tube in position.) They (Drs. Beck and Pollock) removed part of the external papilloma and curetted the entire larynx. Two weeks later the balance of the papilloma was removed. The tracheotomy tube was left out and the patient observed; as the breathing was perfect, the tube was not replaced. They intended doing a plastic operation to close the tracheotomy wound. The patient's condition was very good and he was able to use his voice slightly.

Note.—(A plastic operation has since been done, closing the external tracheal opening, which healed promptly. The child was kept under observation for several weeks and as breathing was perfect and the voice returning, he was allowed to go home.)

DISCUSSION

DR. A. H. ANDREWS said it was quite usual for papilloma in these young children to return. He thought it would be exceedingly fortunate if the tumor did not recur before the child was grown.

DR. JOSEPH BECK thought there was a great difference in the removal of a papilloma in former days by the indirect method and the method of suspension by which this work was done. This was not a simple papilloma; the histologic examination showed a great deal of granulation tissue.

DR. POLLOCK, closing, said that over two years ago they had a similar case from the same city in which the same operation was performed. They removed the growth by means of the suspension method and the voice was much better. In the two years since the operation there had been no recurrence in that case.

Program

Dr. Stanton A. Friedberg read a paper entitled

FOREIGN BODIES IN THE ESOPHAGUS: AN ANALYSIS OF FIFTY CASES.

Dr. Friedberg discussed the symptoms, diagnosis and treatment of foreign bodies in the esophagus. He gave in detail the analysis of fifty cases, with the problems and results connected with their removal.

DISCUSSION

DR. ROBERT CLYDE LYNCH (New Orleans) stated that his experience in extracting foreign bodies had been similar to that of Dr. Friedberg in all instances. About three weeks ago he had had the unique experience of seeing into the mediastinum through the esophagus of a child three-and-a-half years old who had swallowed lye, which had produced a perforation of the esophagus. Through the perforation he was able to recover from the mediastinum a pint of fluid, water, etc. The child lived for about six hours and died from the infection of the mediastinum.

He believed that in about five per cent of the cases he had seen with foreign bodies in the esophagus the smooth ones would go through; rough, sharp-edged bodies stop behind the cricoid, while meat balls land at the cardiac end of the esophagus. He cited the case of a physician who, in attempting to eat chicken, was unable to grind the shreds into small bits and got a ball of undigested chicken at the cardiac end of the esophagus, which it took an hour or more to remove. Crab shells very often land in the esophagus and have the peculiarity of producing no obstruction to the swallowing of either fluids or solids. He reported five cases in which there had been no difficulty in and in which he recovered the shell, but in many instances it was necessary to break the shell into fragments before it could be removed so as not to traumatize the parts. In some of the cases the suspension apparatus had served them very well in this connection.

The speaker thought the symptoms of the presence of foreign bodies in the esophagus were very misleading to a man who had no experience with these cases, for many of them give no obstruction to swallowing, simply producing an increase of secretion of the mucous membrane of the upper portion of the esophagus and a slight irritation from this which overflows from the esophagus into the larynx and worries the patients because they have to cough to get rid of it. He believed that where there was any history of swallowing a foreign body that was sufficient to demand an examination of the esophagus for its presence or absence.

DR. NORVAL H. PIERCE said he had a great sense of comfort in knowing that Dr. Friedberg was living in Chicago where he could be called upon at any time for his special skill. He had seen him work and knew his work was as good as anyone's in the country.

The last case Dr. Pierce has been called upon to examine was one at St. Luke's Hospital, a Belgian refugee who came with the history of having got a foreign body in the throat during a meal composed largely of Illinois chicken. She complained of great pain, but was of rather a neurotic type and had undergone a great deal of suffering in her native country. There was nothing to indicate anything in the esophagus except the pain on swallowing. He saw her in the office late in the afternoon, sent her to St. Luke's and saw her there in the evening after x-rays had been taken. The pain was in the region back of the cricoid cartilage, but nothing showed in the radiograph. There was a shadow, but the x-ray man was not positive whether it was a foreign body or the cartilage of the larynx. On going to the hospital the following morning he found that the patient

had left, having coughed out a triangular-shaped piece of bone, the base of which would perhaps measure an inch and a half. He cited this case simply to accentuate the fact that one cannot depend upon any symptom as pathognomonic of a foreign body in the upper part of the esophagus, nor can one depend always upon the x-ray. He believed that when a patient had swallowed a foreign body the best plan was to search for it, but he had seen a great many cases where nothing had been done and the symptoms had all disappeared within the course of a few days. He thought the safest course was to search for them rather than allow them to go until inflammation occurred and caused increased difficulty in removing the foreign body.

Dr. Friedberg, closing, emphasized the necessity of always making a careful examination, stating that it is extremely difficult to determine whether anything is present or not. In the soft tissue swelling occurs rapidly and hides the foreign body, so it is likely to be overlooked. As to the time that should be spent in looking for a foreign body, he considered anything over half an hour in a child or young person harmful, believing that it was better to make a short examination and repeat it later, if necessary, as they could not stand the shock well.

Dr. H. L. Pollock read a paper entitled

SUSPENSION LARYNGOSCOPY.

Dr. Pollock called attention to the fact that this method has been very much neglected in the hands of the otolaryngolosists throughout this country. When one considers the great advantages of this method of doing intralaryngeal work, either diagnostic, medical or surgical, over the indirect method, it is scarcely conceivable that so few laryngologists are familiar with the technic which is so easily performed with such simple apparatus and instruments.

In 1915 Dr. Pollock's associate, Dr. Joseph C. Beck, read a paper giving their experience in over 200 cases where suspension had been employed. Since then they have had many more. At that time he cited several conditions in which suspension was impossible, but since then Dr. Lynch and others have greatly improved the technic and some of these objections and difficulties have been overcome.

He gave the indications for the use of suspension as follows:

1. Carcinoma.
2. Adenocarcinoma.
3. Papilloma.
4. Fibroma.
5. Angioma.
6. Syphilis.
7. Tuberculosis.
8. Rhinoscleroma.
9. Cicatricial stenosis.
10. Paralysis.
11. Foreign bodies.
12. Burns.
13. Asthma.
14. Post-Traumatic tracheal stenosis.
15. Bronchiectasis.
16. Suction of secretion for bacteriologic examination.
17. Direct intubation.
18. Simple laryngitis.
19. Post typhoidal chronditis.
20. Atrophic laryngotracheitis.
21. Hysteric aphonia.
22. Suspected thymus enlargement.
23. Tracheal compression by thyroid enlargement.
24. Aortic aneurysm.
25. Normal cases.

General anesthesia is necessary in children and infants, and is given either by the blowing vapor method through the mouth or through the tracheotomy tube, if such was previously necessary. In practically all adults local anesthesia sufficed, but in a recent case, notwithstanding a perfect local anesthesia, suspension could not be performed and a general anesthesia was resorted to. By using pure flakes of cocaine instead of the former 20 per cent. solution, the gagging and irritability has been practically eliminated. In some cases as much as four grains of cocaine was used, and they have never observed the slightest toxic results.

(To be continued)

DE KALB COUNTY

The regular meeting of the DeKalb County Medical Society was held in the Odd Fellows Building, DeKalb, October 26, 1917. Dinner was served to the members by the Society at 12 o'clock, after which the business for the day was taken up.

The President not being able to attend, and the Vice-President's chair vacant on account of the recent death of Dr. M. C. Munn of Sycamore, Dr. T. S. Carpenter of Hinckley took the chair. The secretary read the minutes of the April and June meetings, which were approved. Dr. C. B. Brown, delegate to the State Society, gave an interesting report on the same.

As this was the last meeting for the year, the following officers were elected for 1918: President, Dr. Clifford E. Smith, DeKalb; Vice-President, Dr. J. B. Hagey, DeKalb; Secretary and Treasurer, Dr. L. E. Barton, Malta. Dr. Carl H. Milkkinson of Waterman was elected to act on Board of Censors for three years. Dr. C. B. Brown was reappointed delegate and Dr. J. A. Badgley alternate delegate to the State Society meeting for the ensuing year.

J. B. Hagey, Secretary.

FULTON COUNTY

The twentieth annual meeting of the Fulton County Medical Society was held in the Y. M. C. A. Auditorium at Canton, Oct. 9, 1917, and was called to order at two p. m. by President Simmons.

The following officers were elected: President, W. L. Crouch, Fairview; first vice-president, E. P. Coleman, Canton; second vice-president, Jennie W. Parks, Cuba; secretary-treasurer, D. S. Ray, Cuba; necrologist, R. H. Stoops, Ipava; membership committee, L. R. Chapin, Canton; board of censors, J. W. Welch, Cuba; delegate to state meeting, J. C. Simmons, Norris; alternate, P. S. Scholes, Canton; legislative committee, W. E. Shallenberger, Canton; public health, C. D. Snively, Ipava.

Drs. Vern Hays and J. M. Nellis of Canton and R. G. Taylor of Table Grove were elected to membership.

Necrologists' report on the death of Dr. Blake E. Ray was read, accepted and placed on record.

On motion of Drs. Shallenberger and Stoops, Dr. C. N. McCumber of Lewistown was recommended as County Medical Director on the Tuberculosis War Problem Committee.

Dr. D. J. Davis of Chicago gave a paper on "The Relation of Lower Animals to Human Disease."

Dr. S. A. Falls of Chicago presented "Some Phases of Vomiting of Pregnancy and the Management of this Condition."

Drs. Stoops and Gray moved a vote of thanks to Drs. Davis and Falls. Motion carried unanimously.

Eighteen members and three visitors were present.

A bountiful dinner was served at six o'clock by the ladies of the Congregational Church, after which a pleasant hour was had in short talks, recitations and music.

D. S. RAY, *Secy.*

LA SALLE COUNTY

The sixty-fifth annual meeting of the La Salle County Medical Society was held at La Salle, Ill., Tuesday, October 16, 1917, at 10:30 a. m., in the Public Library.

PROGRAM.

10:30 A. M.—General business, election of officers, etc.
President's address, Dr. A. J. Werick, Marseilles.
Address, Dr. F. C. Dayas, Chicago.
"Ordropedic Aspects of Poliomyelitis," Dr. E. Ryerson, Chicago.
"Benign Tumors of the Rectum," Dr. Chas. J. Drueck, Chicago.
"Mastoid Disease as Treated by the General Practitioner," Dr. Ralph H. Woods, La Salle.
Posterior-Gastroenterostomy Operation (shown by moving picture), Dr. H. M. Orr, La Salle.

Peru, Oglesby and La Salle physicians entertained the La Salle County Medical Society at a dinner at the Hotel Kaskaska.

The following officers were elected for 1918: President, Dr. Geo. K. Wilsen, Streator; Secretary and Treasurer, Dr. E. E. Perisho, Streator.

MADISON COUNTY

The Madison County Medical Society met at the Firemen's Hall in Madison, Ill., on October 5, 1917. In the absence of a presiding officer, Dr. W. H. C. Smith, of Godfrey was called to the chair. Twenty-two members present. The committee to draft resolutions on the death of Dr. J. Morgan Sims made a report which was adopted. By motion this report was ordered to be spread upon our records and a copy sent to the family. The secretary gave notice that he would be unable to take charge of the Red Cross Seal campaign for this year and a committee consisting of Fiegenbaum, Barnsback and Ferguson was appointed to secure a sales manager, with power to act.

The committee on devising a plan to safeguard the interests of our members while absent on duty for the nation made report through the chairman, Dr. Ferguson, and on motion of Dr. J. W. Scott, a vote of thanks was tendered to the committee and the committee discharged.

Dr. J. W. Baker reported that Dr. Ralph B. Scott of Venice, was accused of violating the provisions of the Harrison Act and a committee consisting of Drs. Burroughs, Barnsback and Baker was appointed to look after the interests of Dr. Scott in behalf of the society.

The speaker of the day, Dr. Louis Hemplemann, was introduced who gave an address on "Artificial Pneumothorax: The Treatment for Pulmonary Tuberculosis." He reported splendid success in many cases so far advanced that other treatment was of no avail. He advocated this procedure in advanced cases and also in pulmonary hemorrhage. He exhibited an appliance by which gas or air could readily be introduced into the pleural cavity and also said that he had abandoned the use of gas in all cases and was now using only filtered air.

A vote of thanks was tendered the speaker, after which the society adjourned to meet in Edwardsville on the first Friday in November.

MONTGOMERY COUNTY

The September meeting of the Montgomery County Medical Society was held at Witt, Tuesday evening, September 18.

Dr. Everett read a paper on "Hay Fever." Because of his experience with the disease he has kept himself well posted on everything written on the subject for many years and his paper was, as expected, a very interesting review.

Dr. C. W. Vaughn, formerly of Bond County, but now of Nokomis, was voted a member of the society. Dr. Vaughn has taken up the practice of Dr. Tupper, who expects to enter the army service.

It was unanimously voted at the meeting that the society pay the dues, during the period of the war, of all members in good standing who are in army service.

PIKE COUNTY

The Pike County Medical Society met in Pittsfield, October 25, 1917, and, notwithstanding the disagreeable weather, there was a fair attendance. Four new members were voted into the society, which makes seven additions in the past year. This certainly indicates an appreciative interest in organized medicine and a hopeful outlook for the future when one county society increases by practically 20 per cent. in one year. The new members are: Drs. J. T. Doss, Milton; C. E. Thurmon, Milton; J. W. Dinsmore, Nebo, and C. E. Gose, Kinderhook.

A letter from Dr. W. H. Gilmore, secretary of the State Society, was read relative to the First Aid courses of instruction for the Red Cross and examiners for same. It was moved and carried that the local doctors of the various communities act as such and be selected by the president and secretary of the society.

The generous offer of the University of Illinois to supply lectures to the society was much appreciated, but action was deferred for the present.

Dr. E. L. Crouch of Jacksonville presented a very

interesting and instructive paper on "Splanchnoptosis." Dr. H. A. Chapin, also of Jacksonville, exhibited some splendid X-ray plates, illustrating Dr. Crouch's paper, which enhanced very much its instructive interest. The society was disappointed that these doctors could not entirely cover the field on account of having to catch a train. W. E. SHASTID, *Secy.*

Personals

Dr. James A. Day, Jacksonville, announces his removal to Springfield.

Dr. Max C. Hawley, Elgin, has been appointed superintendent of the Watertown State Hospital.

Dr. Marguerite G. Squires, Carrolton, has been appointed county physician of Grundy County.

Dr. Emil Bunta, Chicago, has been appointed a member of the staff of the Oak Forest Infirmary.

Dr. B. H. McKinney, of New Douglas, has gone to Arcadia, Florida, to spend the winter.

Major William J. Swift, M. C., has been appointed director of Illinois field hospital companies at Camp Logan, Houston, Texas.

Dr. James M. Neff, who was on duty with the Murphy Unit in Europe for several months, has returned and resumed practice.

Dr. and Mrs. S. T. Robinson, of Edwardsville, after spending the summer in Colorado and California, have returned home.

Drs. William E. Buehler and Andrew M. Harvery, Chicago, have been elected directors of the public safety commission in Cook County.

The wife of Dr. H. Wernicke Gentles, Chicago, disappeared from her home, October 20, while suffering from melancholia, and her body was found in Lake Michigan the next day.

Dr. Norman Bridge of Los Angeles, recently associated in the war activities of the U. S. Association of Commerce in Washington, attended the banquet to Dr. Billings.

Dr. John J. McShane of the state board of health is investigating conditions in Edwardsville where twenty-five cases of diphtheria have occurred, with one death.

Dr. Cassius C. Rogers has been commissioned major, and Dr. J. Lloyd Hammond, lieutenant, in the Medical Corps, Illinois National Guard, and assigned to the First Reserve Infantry.

Dr. Maurice L. Blatt has been commissioned major, Dr. Arthur H. Parmelle, lieutenant, in the Medical Corps, and assigned to duty with the Second Illinois Reserve Infantry.

Col. C. U. Dercle, survivor of ninety-seven wounds received in the medical service of France, represented France at the meeting of the Clinical Congress of Surgeons.

Relatives of the late Dr. E. Iles Kerlin, Chicago, are attacking his will, which left the bulk of his fortune of $80,000 to Earlham College, Richmond, Ind.

Captain Albert A. Ankenbrandt, M. C., of Mount Carmel, has been ordered to report for service at the base hospital of Camp Zachary Taylor, Louisville, Ky.

Dr. Edmond L. Brunswick has recovered from a severe pistol wound inflicted by his wife, October 16. The doctor was a temporary medical inspector of the Chicago Department of Health.

Dr. Rosalie Slaughter Morton of New York lectured, Oct. 22, at the University of Illinois College of Medicine on "My Six Months Medical Service in Serbia."

Dr. George Parker, medical director of the Peoria Life Insurance Company, has entered on the duties of commissioner of health of Peoria, succeeding Dr. Emmett A. Garrett, called to war service.

Dr. Phelps of Lemmon, S. D., attended a patient thirty-four years ago when a resident of Elizabeth, Illinois, and he has recently been notified that the patient, James McMan, has bequeathed him $50,000.

Sir Berkeley Moynihan, Colonel and Chief Surgeon of the British Army Medical Service, took a prominent part in the Clinical Congress of Surgeons' meeting, as representative of the British medical service.

Dr. James A. Day, formerly of Jacksonville, where he conducted a private surgical hospital for several years, has recently opened an office in the Leland Annex Building, and will continue the practice of general surgery.

Surgeon-General William C. Gorgas of the U. S. Army, William C. Braisted of the Navy and Rupert Blue of the Public Health Service, represented the Government at the Clinical Congress of Surgeons.

Major Harry D. Orr, M. C., assigned to the One Hundred and Twenty-Second Infantry, has been appointed director of Illinois Field ambulance companies. Capt. Robert J. Gay has succeeded Major Orr as regimental surgeon.

Drs. Carl E. Black, Jacksonville, James F. Percy, Galesburg, Clifford U. Collins, Peoria, and J. W. Pettit, Ottawa, were among the throng that honored Dr. Frank Billings at the Auditorium, November 1.

Dr. Alice Barlow Brown, Winnetka, has arrived at Toulouse, France, where she is to establish a free dispensary for women and children which is supported by the women of Winnetka, and the American Fund for French Wounded.

Dr. Fred M. F. Meixner has been appointed medical director of the new Peoria Municipal Tuberculosis Sanatorium, and assumed his duties October 1. The building under construction will be finished about March 1, and in the meantime patients will be cared for in the pavilions now open on the grounds.

Dr. E. B. Coolley, president of the Illinois Medical Society, has recently returned from Washington, D. C., where he attended, as an invited guest, the celebration of the one hundredth anniversary of the District of Columbia Medical Society. Our State Society and Dr. Coolley were honored by that Society in having our president address the doctors attending the banquet that night.

Dr. Effie L. Lobdell, Chicago, visited Washington in the interest of a complete registration of women physicians an organization to secure the greatest efficiency in both war and peace medical work. Other physicians interested in the plan include Dr. Bertha Van Hoosen, Dr. Lindsay Wynekoop, Dr. Mary L. Hanks, Dr. Julia Strawn, Dr. Louise Acres, Dr. Alice Conklin, Dr. Sadie Bey Adair, Dr. Harriet Alexander, Dr. Anna Dwyer, Dr. May Cushman Rice, Dr. Ethel Rice, Dr. Clara Ferguson, Dr. Clara Seippel and Dr. Mary E. Kearsley.

The following commissions of Illinois physicians were announced last month:

Captain Harry S. Gradle, Chicago, assistant to divisional surgeon, Lieut.-Col. Phelan, Camp Grant.

Major William S. Baum, Chicago, base hospital, Camp Grant.

First Lieutenant W. J. Rideout, Freeport.

First Lieutenant Orlando M. Gochnaur, Freeport, now with an American hospital unit in France.

First Lieutenant H. L. Kampen, Monmouth.

First Lieutenant H. S. Zimmerman, Cameron.

First Lieutenant G. A. Longbrake, Galesburg.

First Lieutenant C. J. Johnston, Canton.

First Lieutenant T. D. Cantrell, Bloomington, has been assigned to x-ray work at the Cook County Hospital.

Captain William Fuller, Chicago, has been ordered to report at Camp Pike, Little Rock, Ark.

First Lieutenant Clarence M. Cheadle, Chicago, was ordered to take three months training in tuberculosis work and assigned to Fort Benjamin Harrison.

First Lieutenant Peter T. Spurck, Peoria, has been assigned to Fort Oglethorp, Atlanta, Ga.

The following assignments were made November 3:

Eight medical reserve officers were assigned to Chicago by the war department today for a course of intensive training in brain surgery at the Neurological school, Presbyterian Hospital. They are:

Maj. James F. Corbett; Capt. David O. Thomas. First Lieuts. Ernest W. Downton, Wellington A. Lebkicher, Thomas P. Martin, William J. Potts, Fred L. Patterson, and Samuel Zielonka.

First Lieut. Arthur E. Rogers, medical reserve corps, was assigned to the county hospital at Chicago for a course in military Röentgenology.

Maj. James E. Abbott, infantry, national army, was assigned as major of the Three Hundred and Sixty-fifth infantry, Ninety-second division, at Camp Grant.

Temporary Second Lieut. Leo. J. Stein was assigned to duty with the Thirty-fifth engineers at Camp Grant.

First Lieut. Julien E. Benjamin, ordered to Camp Dodge, Des Moines, for duty at the remount station.

First Lieut. Carl E. Wismer, sanitary corps, national army, was assigned to duty at the plant of the General Motors Truck Company at Pontiac, Mich.

Acceptance of the resignation of First Lieut. George C. Booth, dental corps, Illinois National Guard, was announced by the War Department.

The following commissions in the Officers' Reserve Corps were made November 3:

The medical and dental reserve officers will be assigned to the national guard camps and national army cantonments in the central department and will accompany troops of these divisional camps to France. Some of the officers commissioned, however, will be assigned to base hospital units sent to France in advance of the men in camps.

The men receiving commissions are—captains, medical corps:

Harry H. Emerson, 1225 West Garfield avenue.

Alexander R. Craig, 535 North Dearborn street.

John S. Sweeney, Palmer House.

First lieutenants, medical corps:

James Henry Bloomfield, 4700 Cottage Grove avenue.

Edward A. Corcoran, 3159 Jackson boulevard.

Linell L. Rodgers, 526 East Bowen avenue.

Harry A. Dimon 3100 South Wentworth avenue.

Lamot W. Rosenbaum, 7236 Cottage Grove avenue.

Lester L. Long, 5621 Calumet avenue.

Israel Sherry, 6158 North Clark street.

Joseph L. Hagan, 1900 Central street, Evanston.

Cyril James Larkin, Mercy Hospital.

S. H. Kraft, 125 East Chicago avenue.

Clarence A. Jacobson, 2931 West Adams street.

George W. Cusick, Chicago Heights.

Andy M. Carr, Cook County Hospital.

Thomas Oliver Greig, West Chicago.

Sydney S. Schochet, Marshall Field Annex building.

James E. McNeel, 5744 Stony Island avenue.

K. P. Frost, 25 East Washington street.

Vincent F. Keller, 7046 South Racine avenue.

Hart E. Fisher, 72 West Adams street.

Walter W. Hamburger, 104 South Michigan avenue.

Edwin F. Hirsch, Ricketts building, University of Chicago.

Charles A. Burkholder, 108 North State street.

Herbert V. Mellinger, Wilmette, Ill.

John O. Gaston, Park Ridge, Ill.

News Notes

—The Illinois State Hospital Medical Association will meet at the Lincoln State School and Colony, Lincoln, Illinois, November 22 and 23.

—The Illinois Masonic Hospital Association will attempt to make any Masons physically fit who may be wounded or rejected by the military authorities.

—The alleged German plan to mate people "regardless" to repopulate their decimated cohorts, is meeting with abhorrent denunciation of right thinking people everywhere.

—The United States Civil Service Commission desires the widest publicity for the war need of the Government for stenographers and typewriters on account of the unusual demands of the service.

—At a special meeting of the Rock Island County Medical Society, held in Rock Island, September 27, the essayist of the evening was Dr. Edward C. Rosenow, Rochester, Minn., who spoke on "Infantile Paralysis."

—A case of glanders is said to be under treatment and in strict quarantine in St. Luke's Hospital. The disease is presumed to have had its source in the barns of an express company where five horses suffered from the disease.

—Miss Elizabeth Wallace left Chicago, October 15, for France as a member of the Tuberculosis Commission headed by Dr. Livingston Farrand, president of the University of Colorado, and secretary of the National Association for the Study and Prevention of Tuberculosis.

—An urgent appeal to raise $15,000 has been made by the trustees of the Provident Hospital, which was founded in 1896 for the care of colored sick and injured in Chicago. On account of shortage of funds the free dispensary of the institution has been forced to close its doors.

—At the November election, the people of Cook County will be asked to approve a bond issue of $1,000,000 for the erection of two hospitals as branches to Cook County Hospital. The first, to accommodate 200 patients, is asked for

South Chicago, and the second, in the stock yards district, is intended as an emergency hospital.

—The Clinical Congress of the American College of Surgeons adopted the above title at their recent meeting and elected the following officers: President, Dr. W. J. Mayo, Rochester, Minn.; vice-presidents, James B. Eagles, Seattle, and F. N. G. Starr, Toronto; secretary-general, Franklin Martin; secretary, Allen B. Kanavel; treasurer, A. D. Ballou.

—Nine physicians of Murphysboro, including members and officers of the Jackson County Medical Society, published a declaration that they are attending the patients of others serving in the army and turning over half the fees. They also warn outside physicians from locating in Murphysboro during the absence of those in the army service, but promising to welcome any newcomers after the war.

—Two special clinics were given, October 12 and 13, at the Chicago Municipal Tuberculosis Sanatorium by Dr. H. Kennon Dunham, Cincinnati, who spoke on "The Interpretation of Roentgen-Ray Photographs of the Lungs in Tuberculosis," and by Dr. William Snow Miller of the University of Wisconsin, Madison, who spoke on "The Anatomy of the Lungs." The clinics were attended by present and former members of the staff of the sanatorium and its dispensary, and by the class of the Chicago School of Military Roentgenology.

—Surgeon-General Fotheringham of the Canadian Army addressed the Institute of Medicine of Chicago on Friday, November 2, 1917, in the LaSalle Hotel, at 8 p. m. Surgeon-General Fotheringham went to France in 1914, with the first Canadian contingent, and was in active service in France with the Canadian forces until April of this year, when he was promoted to the Department of Militia and Defense, Ottawa, as Surgeon-General of Canada.

The subject of his address was "Modern Methods in War from a Medical Standpoint."

—The Federal Trade Commission October 30 issued regulations under which American manufacturers may use about 20,000 enemy-owned patents and copyrights. This will enable American firms to make salvarsan and other chemicals that have been practically out of the market for some time. The prices may also be regulated if competition is not sufficient. The following representatives of the Government and chemical interests were in conference with the commission, with Commissioner John Franklin Fort presiding: Julius Stieglitz of Chicago, president of the American Chemical Society; Oscar G. Ruge, assistant surgeon, U. S. N.; Major Victor C. Vaughan, surgeon, U. S. A.; J. W. Kerr, United States public health service; Marston T. Bogart of Washington, representing the Council of National Defense, and Dr. G. W. McCoy of Washington.

—The Vermilion County Medical Society has adopted the following resolution to be presented to the city council at its next regular meeting:

WHEREAS, reports from the warring nations shows that half the incapacitated soldiers returning from the front are suffering with tuberculosis; and,

WHEREAS, the National Council for Defense is demanding vigorous local action on our part, to meet this war condition; and,

WHEREAS, already fifty-two of our citizens have died of tuberculosis this year, and some forty have been discovered in a two weeks' survey; and,

WHEREAS, tuberculosis is preventable, and a curable disease in the early stages under proper care and supervision; and,

WHEREAS, early diagnosis and effective sanitation and isolation are the most essential factors in the prevention and cure of this disease. Therefore, be it

Resolved, That we, the Danville members of the Vermilion County Medical Association do hereby petition the Honorable Mayor and City Council to appropriate from the Tuberculosis Sanitarium fund created for the prevention and cure of tuberculosis, a sum sufficient to maintain a tuberculosis dispensary with a paid medical director and visiting nurse service.

Marriages

JOSEPH FLORIAN KONAPA, M.D., to Miss Marie Kasperek, both of Chicago, in August.

EERKO SAMUEL AEILTS, M.D., Forreston, Ill., to Miss Grace Engle of McKee, Ky., August 18.

CHESTER HENRY KEOGH, M.D., Chicago, to Miss Katherine Knapp of Portland, Ore., August 9.

JACOB RICHTER BUCHBINDER, M.D., Chicago, to Miss Hazel H. S. Felman of Joliet, Ill., in Chicago, September 27.

LIEUT. JACOB A. GOODMAN, M. R. C., U. S. Army, to Miss Ida E. Ginsburg, both of Chicago, September 26.

Deaths

LOGAN COX, M.D., Hallidayboro, Ill.; University of Tennessee, Nashville, 1882; aged 55; died in East St. Louis, Ill., August 9.

WILLIAM PATRICK HONAN, M. D., Chicago; Bennett Medical College, Chicago, 1914; aged 30; died at his home, October 25, from heart disease.

DR. CHARLES CUMMINS HUNT, M. D., Belleview Hospital Medical College, New York City, 1865, died in Seattle, Wash., September 9, 1917; aged 76. Former resident of Dixon, Ill., where he practiced fifty years.

JAMES F. BLACKWELDER, M. D., Litchfield; Cincinnati College of Medicine and Surgery, Cincinnati, 1864; aged 76; a veteran of the Civil War, medical staff; a prominent citizen and physician of Litchfield, an honorary member of Montgomery County Medical Society; died at his home, October 9.

NICHOLAS SOTERIADES, M.D., Waterloo, Ill; University of Munich, Bavaria, 1876; aged 70; died at his home, September 19, from myocarditis.

EDWARD WILLIAM BUHRMASTER, M.D., La Harpe, Ill.; St. Louis College of Physicians and Surgeons, 1905; aged 37; who went to Colorado on account of his health; died in Colorado Springs, September 17.

NORA SOULE DAVENPORT, M.D., Rover Forest, Ill.; Northwestern University, Women's Medical School, Chicago, 1889; aged 72; a Fellow of the American Medical Association; died at her home, October 7.

FRED C. DICKSON, M.D., Danville, Ill.; Indiana Medical College, Indianapolis, 1906; aged 36; formerly a Fellow of the American Medical Association; died in the Glen Rest Sanitarium, near Columbus, Ohio, September 20.

ANDREW BAXTER MILLER., M. D., Chicago; College of Physicians and Surgeons, Chicago, 1898; aged 45; a Fellow of the American Medical Association; professor of clinical gynecology in the Chicago College of Medicine and Surgery; died in his office, October 19, from heart disease.

CHARLES J. OCASEK, M.D., Chicago; Rush Medical College, 1893; aged 47; a well known Bohemian physician; while crossing the street, September 27, was struck by a street car and died in the ambulance while being taken to the hospital.

JESSIE B. PIERCE GARWOOD, M.D., Princeton, Ill.; State University of Iowa, Iowa City, 1888; aged 59; formerly a Fellow of the American Medical Association; a member of the Illinois State Medical Society; died at her home, September 12, from diabetes.

CARL OSCAR BERNHARDI, M.D., Rock Island, Ill.; Rush Medical College, 1902; aged 37; a Fellow of the American Medical Association, and a well known surgeon of Rock Island, who had been suffering from heart disease for six months; died in the Presbyterian Hospital, Chicago, October 8, from lobar pneumonia.

BRENT L. BARKER, M.D., Monticello, Ill.; Louisville (Ky.) Medical College, 1897; aged 46; formerly a Fellow of the American Medical Association; a member of the Illinois State Medical Society; once secretary of the Piatt County Medical Society; local surgeon of the Illinois Central Railroad; died at his home, September 29.

Book Notices

THE MEDICAL CLINICS OF NORTH AMERICA. Volume I, No. II (The Philadelphia Number, July, 1917). Octavo of 269 pages, 28 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Published bi-monthly. Price per year: Paper, $10.00; cloth, $14.00.

This number of the Medical Clinics contains the names of the most prominent of Philadelphia clinicians as contributors. All the clinics are practical as well as scientific. It is one of the best numbers we have seen. As a means of post-graduate study at home these clinics should prove exceedingly useful.

THE SURGICAL CLINICS OF CHICAGO. Volume I, Number IV (August, 1917). Octavo 206 pages, 70 illustrations. Philadelphia and London: W. B. Saunders Company. 1917. Published bi-monthly. Price per year: Paper, $10.00; cloth, $14.00.

Many exceedingly interesting cases are presented in the present volume. Fifteen clinicians are represented with about thirty-four various subjects. Barring a few rarer cases, most of its pages are given to subjects more commonly met with by the surgeon. As a means of learning the views and technique of the contributors, the clinics fulfill their object.

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